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THE ALL-AROUND SPECIALIST

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THE

ALL-AROUND SPECIALIST

A TREATISE

GIVING THE TECHNIQUE OF THE SPECIALISTS IN THE MOST IMPORTANT BRANCHES OF MEDICINE

BY

J. R. McOSCAR, M.D.

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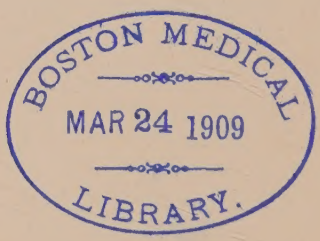

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PREFACE

THE purpose of this book is to place in the hands of the members of the medical profession a number of useful facts not usually in every doctor's possession.

A great many men are advertising to cure cancer without the knife, drunkenness without the patient's knowledge, to remove facial blemishes, to cure hernia without the knife, to restore lost manhood, to cure rheumatism by new methods, etc., and the success met with by a large number of these specialists is something truly wonderful both financially and in the number of cures made by them.

In the last few years of my medical life I have been in close contact with a large number of doctors who are getting the people's money by advertising to do these wonderful things, and, as a consequence, have made a deep study of their technique and have absorbed considerable of their knowledge and methods. This, I know, is not in the keeping of every doctor, and it is, therefore, necessary that a book be in the library of every practising physician that will unfold the methods of the advertising and other

specialists, and enable the ordinary practitioner of medicine to successfully treat all cases that come to him, and which will enable him to hold many cases that formerly he had been unable to handle and which drifted to the specialist.

In compiling this volume I have examined a large amount of medical literature and have carefully studied the methods of a large number of doctors who are making a financial success in the several specialties, and have not hesitated to add to each list any particle of knowledge that I thought would be of benefit to any one into whose hands this book may come, without regard to source.

I have culled formulæ and ideas from many sources known to be reliable. Books, journals, the experience of the best specialists, have been extensively consulted, and I feel that I am offering to the medical profession a book that I would have been very glad to own a half-dozen years ago.

I am very anxious that a friendly relationship shall exist between others of the medical profession and myself; so any light that any member may wish to throw in the direction of this book, to be printed in future editions, will be fraternally received.

J. R. McOscar.

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THE

ALL-AROUND SPECIALIST

PRELIMINARY REMARKS

THERE are a large number of physicians who yearly lose hundreds of dollars on account of their inability to treat in certain ways a great many diseases and conditions that are easily handled by the specialist, who is prepared to inject a hernial opening or hemorrhoid, to apply the proper paste to an external cancer or supposed malignant growth, to remove superfluous hair with drugs or electricity, and to handle dozens of other conditions and diseases that the ordinary practitioner of medicine allows to slip from him and into the hands of the specialist, through want of similar knowledge.

About the only method of getting rid of the quack is to adopt his methods as far as the needs of the people demand.

Hundreds of patients will allow the doctor to apply a paste or plaster or to inject medicine into an opening or tumor who will refuse absolutely to

allow one to use a knife on the same condition. It is for this reason that it is necessary for the general practitioner to have in his library a book that will teach him to treat successfully many conditions that have heretofore gone to the advertising specialist because of objections to surgery.

We dare not refuse to use methods that give good results simply because they originated with some so-called quack. Many treatments that cannot be considered other than the very best have originated in the minds of men who at once are pronounced quacks.

Be the source what it may, good treatment we should not hesitate to use, even though it has been the stock and trade of the advertising doctor, or any one in whom we have no confidence medically.

There is no reason why thousands of dollars cannot be kept out of the hands of the quack by the doctor, if he will only post himself on the methods of the men who are advertising and making thousands of dollars for themselves and giving the poor patient little in return in many cases, besides taking the money that rightfully belongs to the honest practitioner of medicine, who alone is entitled to the profits that come from the needed medical services in his community.

In this book I intend, as far as possible, to give

to the medical profession many ideas that have heretofore been withheld from general publication, and which I am sure will be highly beneficial to many doctors, enabling them to see more clearly the good or poor methods of the quack and the legitimate specialist.

I will not go into detail to give an exact description of the methods employed by the advertiser in handling his patients, for his system of advertising, etc., is understood by the doctor and it would be only a useless filling up of space.

HEART DISEASE

THERE are many heart remedies advertised which have a large sale, and the following is the formula that usually gives the best results:

℞ Sodium bromide, ʒi;
Simple elix., ʒiv.—M.
S. Teaspoonful in water, after meals.

The success of this remedy depends, of course, on the quieting effect of the bromide. Many people have palpitations due to nervousness, which the medicine at once relieves. The principal ingredient in Dr. Miles's heart remedy is the bromide.

More people are in need of the above remedy, who think they have heart disease, than any drug that has direct action on the heart muscle.

A common heart remedy extensively advertised by several firms under different names, and now used by almost every practising physician, is the following:

℞ Nitroglycerin, gr. $\frac{1}{100}$;
Tr. digitalis,
Tr. strophanthus, āā ♏ii;
Tr. belladonna, ♏ss.—M.
Equals one dose. Usually given in tablet form.

The doctor can readily see how the two above formulæ combined would come very near affecting favorably any case of supposed or genuine heart disease.

Adrenalin chloride, cactus, and crataegus are being used with great benefit in many heart diseases and functional disturbances.

The reason the above subject has been added to this book is to show the methods usually employed by the advertising specialist, as well as to bring to mind the class of patients that are generally benefited by treatment given in this manner, and not with the idea of giving original ideas on the handling of organic heart diseases, where the necessity of making an accurate diagnosis is extremely important.

ASTHMA

In every community there are several persons afflicted with asthma, and almost all of them have visited the advertising specialist and every one claiming proficiency in the treatment of this condition.

The following formula is used extensively by an old asthma specialist of my acquaintance.

℞ Aquæ ammoniæ fortier, ʒss;
Elixir simplicis, ℥iv.—M.
S. Teaspoonful every hour until relieved.

The same man uses also the following, which I have found to give pronounced relief in some cases.

℞ Ex. gelsemium fld., ʒi;
Aquæ, ℥iv.—M.
S. Teaspoonful every half hour until relieved or until eyelids are affected.

The following remedy is extensively used by specialist and doctor alike, and with great benefit in many cases.

℞ Ex. grindelia robusta fld.,
Iodide of ammonium, ʒiii;
Tr. lobelia,
Tr. belladonna,
Euphorbia, āā ʒii;
Spts. glonoin, gtt. x;
Ex. glycyrrhiza fld., ʒiv;
Syrup Tolu, q.s. ad ℥iv.—M.

S. Teaspoonful three times a day and every hour during paroxysm.

The above subject and remedies have been mentioned on account of a tendency towards specialization of this condition by a number of men of my acquaintance.

To handle these cases successfully it is necessary to locate the cause of the attacks. If this be done many cases can be completely cured.

The immediate exciting cause of asthma is an irritation of the bronchial, pharyngeal, or nasal mucous membrane. The stomach, uterus, and other organs may be responsible for the production of the attacks. Uræmia is the cause in some instances. Sensitive erectile tissue in the nose and throat is responsible for the production of asthma, and its destruction with the cautery brings about a cure of the condition in suitable cases.

I have treated several cases of catarrh of the

stomach and bowels which had asthmatic attacks as a result of this condition, and which were completely relieved by restoring these organs to a normal condition.

One case of asthma of a severe type, which had troubled the patient for a number of years, was completely cured by correcting a catarrhal enteritis. The patient had passed casts which resembled the lining of the bowel, but which with the aid of the microscope were proved to be mucus. High rectal injections of fld. ex. of hydrastis, one ounce to a pint of water, given once each day for several weeks, brought about a normal condition of the bowel and resulted in complete relief from the asthmatic attacks.

For the relief of the immediate spasmodic symptoms, the usual remedy employed is to soak stramonium leaves in a ten per cent. solution of the aqueous extract of opium. When dry, the leaves are rolled into cigarettes and smoked at the time of the paroxysm.

Euphorbia pilulifera and grindelia robusta have an alterative action, and in some cases are highly beneficial, given both during and between the attacks.

The nitrites, chloroform, and chloral have taken the place of lobelia for the relief of the paroxysm, and the gelsemium prescription given above is equally efficacious.

Arsenic and the iodides, when long continued, have a very beneficial action in many cases of asthma.

The proper application of treatment and medicines will depend upon the ability of the doctor to locate the etiological factors of the condition.

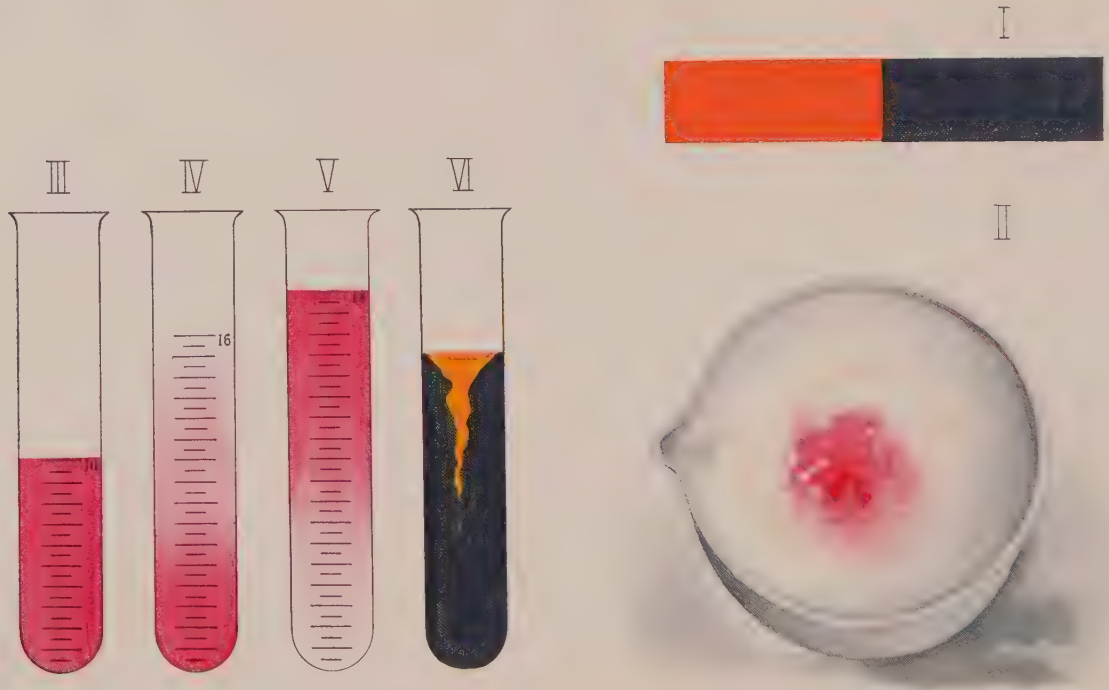
STOMACH DISEASES

Every city and large town now has from one to a dozen doctors making a specialty of diseases of the stomach, and about all of them are doing a large business, for the simple reason that the stomach becomes irritable at once, reflexly, in almost any disease; so the stomach specialist is sought out first for all manner of conditions and diseases.

Almost every stomach specialist is able to analyze the stomach contents after the patient takes a test meal, and can in a few moments give percentages of acids, ferments, etc., and is thereby enabled to successfully treat almost all classes of cases at once. If there be lactic acid present, he knows it at once. If hydrochloric acid be absent or in excess, it is at once proved by these very simple methods.

One wishing to make these tests must have on hand:

1. Red and blue litmus paper.
2. Congo-red paper.
3. Günzburg's solution.
4. Toepfer's solution.
5. Phenolphthalein 1 per cent. solution.
6. Decinormal solution of sodium hydrate.



TESTS EMPLOYED IN DISEASES OF THE STOMACH.—I. Congo-red, showing presence of free acid. II. Günzburg's test for HCl. III. Ten cubic centimetres of stomach filtrate to which has been added a drop of Toepfer's solution. IV. After the addition of six cubic centimetres of decinormal sodium hydrate solution, the red color begins to disappear, showing the percentage of HCl. V. The phenolphthalein has been added to IV. and the decinormal soda solution again added until the red color returns, showing total acidity. VI. Uffelman's test for lactic acid, showing the canary-yellow appearance as stomach filtrate is added, indicating the presence of lactic acid.

7. Freshly prepared two per cent. carbolic acid solution to which has been added a drop of sesquichloride of iron, for making test for lactic acid. This should be prepared at the time the test is to be made.

TO MAKE TEST OF STOMACH CONTENTS, ETC.

The patient eats a slice of ordinary wheat bread and drinks a pint of freshly made tea; and one hour afterwards the doctor pumps or expresses the stomach contents, filters them, and tests for acidity or alkalinity with the litmus paper. The blue paper usually turns red, showing acidity.

Next we test for free acids, which is done by dipping into the stomach contents a small piece of the Congo-red paper, which will turn blue at once if free acids are present and remain unchanged if there be only acid salts.

Now take a small porcelain dish or saucer, place a couple of drops of Günzburg's solution in the centre, drop a couple of drops of stomach contents with the test solution, mix with a glass rod, and dry slowly over an alcohol flame. If hydrochloric acid be present, a bright cherry-red will appear as the two mixed solutions dry.

Percentage of HCl can be determined by dilution of stomach contents. Reaction showing HCl should

still be present slightly after stomach contents have been diluted with distilled water one to seven.

UFFELMAN'S TEST FOR LACTIC ACID

To a two per cent. solution of carbolic acid in water add a couple of drops of sesquichloride of iron. It turns a blue color. This is the test solution and should be freshly prepared for each test.

Take two cubic centimetres of the test solution and add a few drops of the filtered stomach contents. If lactic acid be present, a canary-yellow color will result.

TOTAL ACIDITY

To test for total acidity take ten cubic centimetres of stomach filtrate and add a couple of drops of phenolphthalein (one per cent. alcoholic solution). Then add decinormal solution of sodium hydrate until a slightly red color appears. It usually requires about six cubic centimetres of the sodium hydrate solution to bring on red color if the acidity be normal.

About the best method of estimating the amount of free HCl present is by the use of Toepfer's solution. Add a couple of drops to ten cubic centimetres of stomach filtrate; the HCl present turns the solution red. Now, on adding about three and a half

cubic centimetres of the decinormal solution of sodium hydrate the red color disappears if the HCl be present in normal quantities. So by these last two methods the free HCl can be estimated, as can that also which exists in combination, or the total acidity.

Decinormal soda solution contains forty grams of caustic soda to a litre of water.

I think, if any one will read carefully the above few and simple directions, he will be enabled to make as favorable an impression on the intelligent patient as does the specialist, and be able to hold and treat to complete recovery many diseases and conditions of the stomach that will otherwise go to the specialist or resort to patents.

It is necessary that one have on hand several stomach-tubes, small porcelain dishes, burette, and glass tubes graduated in cubic centimetres.

THE INTRODUCTION OF THE STOMACH-TUBE

The tube is dipped into water, and when introduction is attempted the patient is instructed to swallow. At this time the tube should be rapidly forced into the stomach. The patient will gag several times before you succeed the first time, but at these times is just when the introduction should be made, as the constrictor muscles relax at that time. The patient should be told beforehand to think of

nothing but to swallow and that he will gag, but that as soon as the tube is in the stomach he can breathe as well as if it were not there.

After the tube is introduced, the stomach contents can be easily secured by instructing the patient to hold his breath and bear down,—that is to strain. This will force the stomach contents up through the tube. This is called expressing the contents. The patient can do this better if he will hold the nose while straining.

By these tests we can at once determine whether the patient is in need of alkaline or acid treatment.

There are many people having no hydrochloric acid. By giving these patients HCl in large doses after meals, the benefit is indeed very marked. There are many others who have HCl (hyperchlorhydria) in excess to such an extent that as soon as the food passes into the intestines there will be a burning or gnawing in the epigastrium. This the alkaline treatment relieves temporarily.

The specialist who sends medicine to the distant patient must necessarily depend on question blanks or use a shot-gun prescription, and trust to luck to cure the patient or talk to bring him back for more treatment. Where one will require a raw meat diet another could not tolerate it.

A very useful remedy for hyperacidity is the following:

℞ Acetanilid, ʒiii;
Bis. subnit.,
Carbo. veg.,
Sodii bicarb., āā ʒii;
Magnes. carb., ʒii;
Ol. menth. pip., gtt. x.—M.

Rub the peppermint oil with the magnesium carbonate and add the other ingredients. Mix thoroughly.

S. Teaspoonful every three hours, or more often if there be burning in the stomach.

Cascara should be given if patient is constipated, for this is the cause of excessive acidity in many cases.

The following is also a fine formula for the same condition:

℞ Sodium bicarb.,
Resorcin,
Sodium sulphite,
Carbo. veg., āā gr. ii;
Capsicum, gr. ⅛;
Nux vom., gr. ¼.—M.

Make into one pill.

S. One before meals and at bedtime.

In catarrhal conditions the following prescription gives fine results:

℞ Ex. hydrastis fld., ʒiii;
Glycerin, ℥i;
Glycyrrhiza, ʒii;
Syrup,
Water, āā q.s. ad ℥iv.—M.
S. Teaspoonful before meals.

This is a very valuable medicine, and can be used to good advantage in almost any stomach disease or condition, and for that reason is used as a routine medicine by the man who sends medicine to distant patients.

The pepsin can be left out of most prescriptions, for it is already present in most stomachs in some quantity. Large quantities of pepsin are used when in reality all that is indicated is the hydrochloric acid in maximum doses.

Any one who can find out when to give acid and when alkaline treatment will have almost covered the distance in treating stomach diseases and in a special way.

Catarrhal conditions are very much benefited by washing out the stomach with a diluted solution of listerine, or spraying the walls of the stomach with a one or two per cent. solution of silver nitrate. This should be done twice or three times a week.

ULCERATION OF STOMACH

Ulceration of stomach is best treated by spraying stomach, as in catarrhal conditions, or giving silver nitrate in small doses often repeated and on empty stomach. At the same time patient should be put to bed, given enemas for nourishment, and poulticed over stomach for a week. Other good medicinal treatment is bismuth subnitrate in half-drachm doses every three hours.

TEST FOR PEPSIN

Put a thin slice of the white of a hard-boiled egg into a test-tube which contains about six cubic centimeters of the stomach filtrate. This should be kept at a temperature of about 100° F. If HCl be absent from the filtrate, a few drops of the dilute acid should be added. In from two to six hours the egg will have become entirely dissolved if pepsin be present.

TEST FOR PROPEPTONE

This is a product of albuminoid digestion. Its presence is determined by mixing equal parts of the stomach filtrate and a saturated solution of sodium chloride. If propeptone be present, a turbidity of the solution results and the propeptone is precipitated. This clears up when the solution is heated,

but reforms when the solution cools. In case no precipitate forms, this can be hastened by the addition of a few drops of acetic acid.

TEST FOR PEPTONE

After testing for propeptone, separate the precipitate from the solution by filtration, and make strongly alkaline by the addition of sufficient sodium solution and a few drops of a one per cent. solution of cupric sulphate. Peptone, if present, causes a violet-red or purple color.

TEST FOR RENNET FERMENT

Take about six cubic centimetres of milk in a test-tube, add several drops of the filtrate, shake thoroughly, and stand in warm water for fifteen or twenty minutes. If rennet be present, the milk will curdle. If after one hour no curdling occurs, rennet is absent. If no curdling results now after the addition of a one per cent. chloride of calcium solution, no rennet zymogen is present. This is sometimes present when the rennet ferment is absent, and the chloride of calcium test will be positive proof of its presence or absence.

NOTE.—As it is usually difficult for the physician to buy the necessary chemicals and apparatus to successfully conduct examinations of the stomach contents, I will mention that a box containing all the articles needed to make such tests can be bought of The Chemical Supply Co., of Toledo, Ohio.

MOBILITY OF THE STOMACH

There are several methods of ascertaining the condition of the motor function of the stomach. The following are the more important ones which are in common use.

A capsule containing fifteen grains of salol is given half an hour after a light meal. This will not dissolve in the presence of acids. Its decomposition does not therefore begin until it comes in contact with the alkaline intestinal secretions. From here it is absorbed as phenol and salicylic acid. The latter is taken up by the blood and eliminated with the urine as salicyluric acid. This can be recognized by adding a neutral solution of chloride of iron, which produces a violet color.

A simple method, originated by Einhorn and Ewald, is to dip blotting-paper in the urine and then to drop the iron on the paper while it is still moist. The violet color remains after the paper becomes dry.

To make the test the patient should urinate every half-hour after taking the salol, and a test of each specimen should be made. Normally the violet should appear at the end of an hour from the time the salol has been taken, and in retarded motility the time may be two or more hours.

Another method is to instruct the patient to eat a

good-sized supper, and the following morning the stomach should be thoroughly washed. Any indigested particles will show a diminished motor function. This can also be done three or four hours after taking the ordinary light test meal.

THE FUNCTION OF ABSORPTION FROM THE STOMACH

The rapidity of absorption is determined by a large number of writers in the following manner.

The patient is given from three to five grains of potassium iodide in capsule on an empty stomach. Normally the saliva should respond to the iodine test in from eight to fifteen minutes, which is made in the following manner.

Filter-paper should be dipped in starch-water and dried. Small strips are cut, and one of these is saturated with the saliva every minute or two. After dipping in the saliva, a drop of strong nitric acid is dropped on the paper. If iodine is present, a blue or slight violet color results.

METHOD OF MAKING EXAMINATIONS IN STOMACH CASES

The manner in which the examination of patients should be conducted must necessarily be very complete. Especially should particular attention be

given to the ordinary technique which is necessary to make any physical examination.

It is best to have a case-book and the following points enumerated in regular order.

1. Name.
2. Age.
3. How long ill.
4. First symptom noticed by patient.
5. Symptoms constant or interrupted.
6. Other subjective symptoms, such as appetite, belching, thirst, taste, pains, regurgitation, nausea, pyrosis, vomiting, tympanitis, sour stomach and condition of bowels, should be questioned.
7. Inspection.
8. Palpation.
9. Percussion.
10. Mensuration.
11. Succussion.
12. Sounds, such as gurgling, ringing, respiratory, splashing, etc.
13. Reaction of stomach filtrate.
14. Congo-red test for free acids.
15. Günzburg's test for HCl.
16. Quantity of HCl.
17. Total acidity.
18. Lactic acid.
19. Pepsin.

20. Rennet.
21. Propeptone.
22. Peptone.

Inspection will sometimes give a very close idea of a patient's condition, especially the stage of organic disease or severe functional disturbances,—as, *e. g.*, the cachectic appearance of the cancer patient, the emaciated condition of the tubercular subject, while the victims of neurotic tendency have the look of being well nourished, which is in striking contrast to the symptoms of which they complain.

The tongue, pharynx, teeth, and gums should receive attention, for many times an abnormal condition of these parts will give rise to gastric disorders.

Inspection of the abdominal walls will sometimes enable one to outline the stomach and other organs, especially in displacements and enlargements. Peristalsis of both stomach and intestinal walls can many times be noticed through the abdominal parietes. This, if in excess, denotes restlessness due to muscular or nervous abnormality.

Palpation is a factor in diagnosis that should never be neglected. Even in cases of slight severity the physician should give this important point attention.

The patient should be in a recumbent position,

with the limbs flexed and the abdominal muscles relaxed. The physician should now place one hand, "which should be warmed," flat upon the abdominal wall. Then by moving this hand in this position over different parts of the abdomen and at each point bringing the other hand into use, it will not be difficult to note the tenderness, sensitiveness, or resistance that may be present, or to determine the size, mobility, and location of tumors and enlarged and displaced organs.

The transverse colon can almost always be palpated.

The liver, spleen, and kidneys are easily palpated if at all enlarged or displaced.

The right kidney can be palpated in normal subjects by having the patient assume the easy recumbent position spoken of above. The left hand is now placed beneath the patient in the lumbar region. The fingers of the right hand are placed at the margin of the ribs in the right hypochondriac region and the patient is instructed to take a long breath. This will force the kidney downward. Now, just as the patient begins to expire, press the fingers of the right hand as far up under the ribs towards the liver as possible, at the same time pressing up from below with the left hand. Many times one can include the entire kidney between the two hands, and as the

organ slips back to place its shape and size can easily be noted. In almost all cases at least half of the kidney can be palpated. In women who have borne several children the kidneys are easily palpable.

Percussion is a very important procedure, and should always be done in the following manner:

The patient is made to drink as much as a quart of water, if possible, and, while in the standing position, the dull sound produced by percussing over the water in the lower half of the stomach region contrasts greatly with the tympanitic sound elicited over the surrounding intestines.

Enlarged organs or abnormal growths are more easily outlined by the aid of percussion.

Mensuration should be employed to note lung expansion of patients who present a tubercular aspect.

Succussion.—It is claimed that, if the stomach be enlarged and contain some gas and liquid, shaking the patient will produce a splashing sound. In my opinion this is of little value as a diagnostic agent, for it can be produced also when no enlargement is present.

Air in an otherwise empty stomach will produce a gurgling noise.

In cases with a dilated stomach I have noticed a ringing sound.

There is a deglutition sound which occurs at the time of swallowing and can best be heard at the upper end of the sternum.

There is also another sound connected with the act of deglutition and can best be heard over the xiphoid cartilage. This occurs normally in from six to eight seconds from the time of swallowing.

It is always important to take note of the number of seconds elapsing from the time that the patient takes a swallow of water until this sound is heard, to at once bring to mind the possible presence of a stricture of the œsophagus.

A valuable aid to the diagnosis of dilatation of the stomach is by the use of the gastrodiaphane, which was first suggested by Dr. Einhorn. With this instrument it is possible to transilluminate the gastric and abdominal parietes.

An Edison incandescent light of small size is attached to conducting wires, and these are insulated with a small flexible stomach-tube. The wires have a switch connection, so that the illumination can be instantly made or discontinued by the use of a lever.

The glass is of a strong crystal type to prevent the possible occurrence of breakage.

The water which is almost constantly in the stomach will prevent the lamp from becoming over-

heated. If no water be present, a glass should be drunk before introducing the instrument.

The above are fair examples of the most difficult diseases and conditions with which the specialist has to contend in the stomach line, and which any thoughtful physician can easily handle.

PEACH-KERNELS

I knew an old gentleman, one of the laity, who cured all the stomach troubles that ever applied to him for treatment and who would follow his directions for several months. The treatment consisted in the taking of four peach-kernels before each meal for three months, and then gradually reducing the dose as the patient got better. He claimed surprising results in every case. Hydrocyanic acid is very beneficial in some cases. It is from this that the kernel derives its therapeutic value.

LISTERINE

In the treatment of stomach diseases it is necessary to employ an antiseptic, and listerine is as good as any for that purpose. Many physicians purchase the genuine article, for which they must pay an enormous price as compared with its real cost.

The following formula is a good, reliable imitation of the above-named remedy:

℞ Boracic acid, ℥iv;
Benzoic acid, ℥iii;
Sodium biborate, ℥ii;
Menthol, ʒi;
Thymol, ʒii;
Oil of eucalyptus,
Oil of thyme, āā gtt. xl;
Oil of gaultheria, ʒii;
Glycerin, ℥iv;
Alcohol, ℥viii;
Water, q.s. ad gal. i.—M.

Dissolve the first three ingredients in hot water and filter. Add the oils, the menthol, and the thymol to the alcohol. When these are dissolved, mix with that which has been filtered and add sufficient water to make one gallon.

CASES

A description of one of each of the different classes of cases with which the stomach specialist has to deal will now be given.

Many persons having stomach diseases and disturbances come to the physician and specialist for treatment that will make him follow his lines of

diagnosis and treatment through all of the factors that should lead to a successful termination, but after resorting to all manner of treatment for several months, he will wonder why they are not benefited.

Difficult cases are those of a nervous type, or that class that have the neurotic element as a factor in the make-up of their condition.

Others by gluttonous habits of eating and drinking have destroyed the secretory power of certain organs to such an extent that complete or even partial restoration to their former healthy condition has become practically impossible. This class of cases the doctor will be enabled to diagnosticate by the use of the tests given above, and the patient can at least be told the true condition and instructed with regard to diet, temperance, etc., which, if followed, will give him a comfortable and longer lease of life in many cases that would otherwise live but a short time.

I have been fortunate in having had a variety of difficult cases in this line to treat, and will give a description of several that I consider very important, and which to me were decidedly interesting.

Case I.—The first is that of an unmarried lady, age twenty-seven, who always apparently vomited everything that she ate. The relatives wondered how she managed to exist, for, if any food, even a

few spoonfuls, were swallowed, it would be rejected by the stomach. In spite of this constant vomiting, she seemed to be fairly well nourished, and sufficiently strong and active to attend to ordinary duties and take an active part in social affairs.

This lady took all kinds of patent medicines. This form of treatment extended ever several years, and a like number were spent with doctors, who had given symptomatic treatment, and all had given no benefit.

I began treating the lady about one year ago. At that time she was constipated and had been so, off and on, for several years. She complained of an intense hunger, which was not constant, but was present about half the time. At times there was pain of a burning character in the epigastric region.

I had the patient eat an ordinary slice of wheat bread and drink a scant pint of freshly made tea at the same time, and one hour afterwards had her express the stomach contents, as described above under article on stomach-tube. The phloroglucin-vanillin (Günzburg's solution) test gave the cherry-red color showing presence of HCl. The Congo-red paper changed to blue when dipped into the stomach contents, showing the presence of free acid. Now, by the use of Toepfer's solution and the decinormal sodium hydrate solution, the percentage of HCl was shown to be 48,—that is, it took 4.8 c. c. of the

sodium hydrate solution to cause a disappearance of the red color in 10 c. c. of the stomach filtrate; the red color being produced by the addition of a couple of drops of the Toepfer's solution to the filtrate before the sodium solution was added.

Previous to the examination I had thought that this patient was entirely on the neurotic order and could not possibly be benefited by any form of medication or treatment, but I now saw that we had at least two conditions that needed attention,—the hyperchlorhydria and the constipation.

I prescribed cascara, and ordered the patient to take as many teaspoonfuls each day as would be necessary to give at least two bowel movements. The formula given under hyperacidity was given for several weeks (the one containing acetanilid, bis. subnit., charcoal, sodium bicarb., etc). This was alternated with the following:

℞ Ext. hydrastis, fld.,
Ex. lupulin, fld.,
Ex. glycyrrhiza, fld., āā ℥i;
Glycerin, ℥i.—M.
S. Teaspoonful before meals and at bedtime.

Whenever the hungry spells were present, fifteen grains of sodium bromide every two hours for several doses would give pronounced relief.

In connection with the medicinal treatment, lavage with one-half strength listerine and water was given twice each week.

Static electricity was given for several months, and this alternated with intragastric faradization with an insulated electrode.

The lady was also instructed to massage the epigastric region twice each day a half-hour at a time. She was also told to eat very slowly, one-half teaspoonful every five minutes, if necessary, so that retention would be possible, and also to swallow again all food that came into the mouth from the stomach. These rules she followed to the letter, and as a result this lady has not vomited her food for several months.

I am still keeping her under surveillance, but expect to discharge the case as cured before many weeks.

In nervous vomiting or regurgitation the most important rule for the patient to observe is to swallow all food that is regurgitated. If this is done, the benefit experienced will be very pronounced.

Case II.—The next case is that of a married man, age thirty-eight, and very robust in appearance. He complained of pain in the epigastric region. Pressure intensified this symptom, as did

also the taking of food or water. This condition had lasted for two years, in spite of all treatment that he had received at the hands of a number of physicians. The patient was slightly nauseated at times.

This man was very wealthy and would willingly have contracted to give any one almost any amount of money to have guaranteed a cure.

Analysis of stomach filtrate after test meal showed a hyperacidity degree of 85, which was 25 in excess of normal. There was also a very pronounced catarrhal gastritis, shown by the large amount of mucus present in the stomach washings.

This man's treatment consisted of lavage with one-half strength of listerine solution, static and faradic electricity, and massage of the epigastric region, as prescribed for the case described above.

The medicines used were the powder the formula of which is given above under hyperacidity, and the hydrastis and lupulin prescription given as treatment for Case I. These were alternated as the indications present demanded, as the case progressed. The alkaline powder was given until the amount of HCl was nearly normal, and then the other prescription was used for a time. If symptoms of hyperacidity returned, the powder would give relief in a short time. Pronounced benefit was noticed by

the occasional use of sodium bromide when stomach pains were present; but usually the acetanilid present in the formula was sufficient to overcome this symptom, at the same time having a pronounced antiseptic action.

This man was given from one to three teaspoonfuls of sodium phosphate in divided doses, taken in hot water on an empty stomach, each day.

Three months after this man began treatment he attended a German banquet and ate a large sauerkrout dinner which caused no distress, and many such dinners have been since eaten with a decided relish and no noticeable inconvenience.

Case III.—This case is that of a married man, age forty-two, who said that he had never been sick in his life. He had one important symptom, and that was a pain in the epigastric region. This was intensified when pressure was instituted.

I suspected an ulceration, and ordered the man to discontinue all food and to go to bed. The latter direction he ignored, and that night I was sent for in a decided hurry. When I arrived, the man had vomited a pint of blood, and with the ejected stomach contents a piece of the mucous membrane which lines the stomach, as was afterwards proved by examination under the microscope.

I immediately ordered an ice-bag to be placed over the stomach. This was kept in that position several days. Nothing but a small amount of ice in large chunks was allowed for several days by the mouth. A few nutrient enemas were given after the second day. After ten days beef tea was allowed by the mouth and other foods were gradually added.

The medicines used in this case were ergotole and adrenaline chloride hypodermically, and to the first injection was added half a grain of morph. sulph.

This man has since experienced the same symptoms noticed in the beginning of the first attack, but came at once for treatment. I stopped all food, ordered him to go to bed and poultice for three days with flaxseed meal over the epigastric region. After thirty-six hours he was allowed beef tea and albumin water, and more solid food was gradually added.

The hydrastis and lupulin prescription was given in the two instances that this slight recurrence happened.

At this writing the man has had no symptoms in the last eight months.

Analysis of stomach contents in the interval showed a slight hyperchlorhydria and a mild catarrhal condition, which always responded immediately to treatment.

Case IV.—This patient is a married man, age forty, whose morbid condition extends over a period of several years,—that is, the symptoms which have lately existed. He has had cramping pains over the stomach and bowels and a diarrhœa. These two symptoms were almost constantly present, occasional remissions of several days occurring that the patient would feel perfectly well, when a recurrence of above symptoms would follow, which would last several weeks in many instances.

One hour after test meal, stomach contents, being expressed, were found to contain no gastric juice. Acidity was zero, and diagnosis of achylia gastrica was made. There was always considerable thick mucus in the stomach washings.

The patient was very muscular, but of a very nervous make-up. The catarrhal condition, together with his impressionable nervous system, was probably responsible for the induction of the atrophic condition of the stomach.

This man did not care for the albuminoids, and usually made a meal of the starchy foods or those of less solid character.

I ordered massage of the epigastric region, and gave intragastric faradization, also static electricity, and washed the stomach every four days, using the listerine solution mentioned above.

As medicines the following formula was given as beginning treatment:

℞ Dil. hydrochloric acid, ℥i;
Tr. nux vom.,
Fld. ex. condurango, āā ʒii;
Pepsin, grs. xx;
Glycerin,
Water, āā q.s. ad ℥iv.—M.
S. Teaspoonful in water after meals.

This prescription was alternated with fifteen drops of fld. ex. hydrastis before meals.

This man while under treatment appears to be in a fairly good condition and comparatively free from distressing symptoms, but after he has gone without medical attention for a few weeks the symptoms return, and he must supply an artificial stomach secretion for a time. This will probably continue as long as the man lives, for repeated examination of the stomach contents shows no digestive juices to be present.

Case V.—This case was that of a married man, age thirty-five, who was in the habit of taking a great amount of physical exercise and had the general appearance of being in a fairly healthy condition. His symptoms were pain in the epigastric region which was almost constant, belching of gases,

anorexia, and constipation. The patient said that he drank an occasional glass of beer, but did not think that what he imbibed was sufficient to cause any systemic disturbance. This condition had lasted a year, and the patient said he seemed to be getting constantly worse.

Analysis of the stomach contents after a test meal gave a hyperacidity degree of 75, and a large amount of mucus was always present in the stomach washings.

The patient was treated for several weeks, with no apparent benefit. I then questioned the man's wife, and found that, instead of the occasional glass of beer, the man averaged from ten to fifteen glasses each day.

I therefore informed him that he would have to forego all alcoholics, and painted as glowing a word-picture as possible of the commencement of liver sclerosis, and succeeded in frightening him to such an extent that he agreed to discontinue the drinking of all intoxicants. The terrible constant craving, however, weakened his determination to such an extent that the usual amount was disposed of the following day. This convinced me that the man needed treatment for alcoholism as well as that of the gastritis present.

He was perfectly willing to take the treatment,

and this was given in a manner similar to that of other cases described under the treatment of the alcohol habit.

The hydrastis and lupulin formula soon corrected the catarrhal gastritis. The bromides were used at bedtime in drachm doses to overcome the restlessness, and in three weeks' time the patient was in a perfectly healthy condition. Three years have now come and gone and this patient has had no trouble with his stomach. He cannot bear the sight or odor of intoxicants.

Case VI.—About one year ago I was consulted by a married lady, age forty, who complained of having difficulty in swallowing food on account of what seemed to her to be a growth in the region of the manubrium and which seemed to be a part of the œsophagus. The patient presented a feeble appearance, was very emaciated, and had a pronounced cachectic appearance. Gastrodynia, anorexia, and repeated forcible belchings were present. This lady had been kept on a very scant diet for many months, and had lost flesh as a result.

I made an effort to introduce the tube, and found an apparent stricture in the place mentioned above; but after a time the tube was introduced, the con-

tents drawn, and found to be normal. This was after a test meal.

I at once felt assured that it was a pronounced case of hysteria, and came to the conclusion that remedies in this case were useless. So lavage and faradic and static electricity were used for a time at regular intervals, which were gradually lengthened as the symptoms abated, until at the expiration of about three months the patient was discharged as cured. Placebos were used entirely as medicines.

Case VII.—In 1901 I was consulted by a married man, age thirty-eight, who had been suffering many months from what he had been told was a chronic catarrhal condition. When I first saw him, he presented an emaciated and slightly cachectic appearance. He had a retracted abdomen, and a tumor was easily palpable near the pyloric extremity. This was the size of a large hickory-nut.

After the test meal lactic acid was demonstrated by the use of Uffelman's test. As the case progressed this acid was not always present, and after two months from the time the patient was first examined there was no acidity present. The reaction was always neutral. Mucus in large quantities was always present in the stomach washings, which were

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infrequent and made for diagnostic purposes or to note condition of stomach contents.

The patient suffered terribly and weakened rapidly until the end came, which happened about three months from the time he first presented himself for treatment.

This patient was offered operative measures at the time of the first examination, but refused to consider surgical treatment.

OTHER DISEASES WHICH CAUSE STOMACH DISTURBANCES

In almost every disease to which humanity is heir the stomach will come in for a share of reflex disturbance. So, when analyzing the stomach contents, the condition of all the body organs and functions should be considered.

The tubercular patient, even in the early stages, will have enteralgia, anorexia, a feeling of distention, belching, constipation or diarrhœa, gastralgia, etc. Unless in the early stages free HCl will usually be absent, but may be present in a small percentage of cases.

Many kidney and heart affections of an organic character will produce stomach disturbances through the circulation and nervous system. Free HCl will be absent in many of these cases. Pronounced cases

of gout and diabetes will show a diminution or total absence of free HCl.

Anæmia and chlorosis will give to many patients nervous disturbances, such as anorexia, hyperæsthesia, etc.

When liver disorders are present, the stomach at once shows the ill effects of its proximity by the nausea and bilious vomiting.

Many skin diseases are the result of diseases of the stomach.

Chronic disorders of the female as well as of the male sexual organs are sometimes followed by pronounced stomach symptoms. During normal menstruation there is always a diminution or total absence of free HCl. Amenorrhœa, dysmenorrhœa, retroflexions, and the climacteric produce very pronounced symptoms of a deranged stomach.

GENITO-URINARY DISEASES

LOST MANHOOD

Pathological conditions and weaknesses of the genito-urinary organs are so frequent that the quack, the specialist, and even the general physician are kept busy in that direction.

If thousands of people only knew the load that could be lifted from their minds if they had an accurate knowledge of the body functions, especially of the urinary organs, they would be many dollars in pocket, have less sleepless nights from worry over their supposed condition, and the advertiser would have to go into some other business.

Every newspaper now printed contains several advertisements offering to give relief to the hollow-chested and blear-eyed young man who has lost his manhood from early indiscretions and abuses. He is told to allow his urine to stand for twenty-four hours, and he will notice considerable sediment and albuminous material at the bottom of the container. He is also told that his nocturnal emissions, which occur once in one or two weeks or less time, are surely laying a foundation for the dread disease consumption. He is informed that any albuminous ma-

terial that may ooze from the sexual organ while at stool is semen, and that his vitality is being sapped in this manner.

These men offer to give him complete relief, and claim that the young man will notice improvement from the first month's treatment and possibly a complete cure. Of course, the only thing that happens is that the patient is relieved of considerable cash and he secures the knowledge that he has not been cured this time, so tries the next specialist who words his advertisement somewhat differently.

It is certainly the duty of every physician to post every young man with whom he comes in contact, and has a chance to do so, on the true functions of these organs.

Many men need treatment for these conditions. This can be given them by some good physician who lives in their own community far better than can the advertiser, who in the majority of instances furnishes the patient with an aphrodisiac, which certainly does not do the young unmarried man much good.

The conditions for which this class of patients usually seeks relief are spermatorrhœa, nocturnal, diurnal, and precipitate emissions, prostatorrhœa, etc. These all have various causes, and their proper treatment will be taken up in regular order.

LOST VITALITY

If this condition really exists, it certainly needs treatment and in a proper way. Many a young man has brooded over the language used in the advertisement of the quack, which he thinks accurately describes his case, until the worry causes him to lose flesh and not the oozing mucus noted at time of stool. Nevertheless, some form of treatment is necessary, but not the usual medicines prescribed by the advertiser, which are on the aphrodisiac order to all. The patient should be thoroughly examined and his exact condition treated.

Treatment.—The complete treatment of many cases will be nothing more than some sound advice or a few explanations relative to natural body functions. Others, who have sensitive prostatic urethras, a relaxed condition of the openings to the seminal vesicles, spasmodic and organic strictures, general hyperæsthesia, etc., will need appropriate treatment.

PROSTATORRHŒA

Prostatorrhœa is an excess of prostatic secretion. This may flow intermittently or continuously, but usually flows back into the bladder and is voided with the urine.

The common *cause* is a passive congestion. It

usually occurs in young and middle-aged men and more frequently in the unmarried, and this in turn is brought on by sexual excesses, masturbation, intemperance in eating and drinking. In gouty and rheumatic conditions the tendency towards pelvic congestion is common, making this a possible cause. Spasmodic and organic strictures or any condition capable of producing an irritation are common causes. Rectal diseases should receive consideration, also horseback and cycle riding, drastic cathartics, etc.

Usually a *diagnosis* can be made by the patient voiding a specimen of urine in three portions. The first will be cloudy or milky; this contains the urethral contents. The second will be more clear, and the third will be entirely so. The amount of variation between the first and the other portions will usually correspond to the severity of the case. The microscope is necessary to differentiate this condition from spermatorrhœa.

Treatment.—Should hemorrhoids, anal fissure, phimosis, urethritis, stricture, gout, or rheumatism be present, they should receive prior consideration.

The young or middle-aged man who usually comes asking for the cure of a discharge which takes place at time of stool or at time of any act of straining or at the time of an erection, generally tells the physi-

cian that this was brought on by early vices, and that now the weakened condition is being kept up by night emissions occurring from one to three times each week.

My method of treating these cases is to tell the patients that it is perfectly natural for continent, healthy men to have night emissions occasionally. I next tell them it will be necessary to keep them under surveillance for several months, that they will have to follow my directions with regard to treatments, medicines, habits of life, etc., and that we will get results.

In these cases there is usually a mild inflammation or intense congestion of the prostatic urethra; this causes spasmodic strictures, which by their irritative action induce a flow of the prostatic fluid. The urethra is hypersensitive at this point, which is a common cause of excessive and precipitate emissions. The patient may have a very narrow meatus.

The hypersensitiveness should first be treated, and this is best done with the following formula:

℞ Sodium bromide, ℥ii;
Potassium citrate, ʒii:
Atropine, gr. $\frac{1}{120}$;
Syrup, q.s. ad ℥iii.—M.

S. Teaspoonful after each meal, in water.

After the patient has taken this for several days, a cold steel sound is introduced of such a size that its passage is easily induced. A No. 16 French is the usual beginning size. This is repeated every fourth day, larger sounds being used as dilatation progresses, until in the course of a few weeks as high as a No. 35 French can be introduced in some cases.

The dilatation of the canal will cure the spasmodic strictures, and the cold steel has a tonic action on the mucous membrane. The canal should be dilated to as great a degree as possible in these cases, to get the best results.

With the bromide compound the patient's sensory system can be obtunded to such an extent that no inconvenience will be experienced while the sound is being used.

The potassium citrate will remove any irritating quality of the urine. Atropine assists in controlling the emissions by lessening the secretion and by its anodyne action.

After the bromide formula has been used for some time, sufficient sedative action can be maintained by the following:

℞ Tr. salix nigra (Lloyd's),
Syrup, āā ℥ii.—M.
S. Teaspoonful three or four times a day.

This drug does not upset the stomach, as do the bromides, and its action is quite similar in these cases.

Cases of prostatorrhœa that resist this form of treatment and are due, as they usually are, to areas of inflammation, can be cured by making applications of a silver nitrate solution, thirty grains to the ounce, to the inflamed spots through an endoscope, or a couple of drops of a strong solution can be deposited at this point with a deep urethral syringe. If a special syringe is not at hand, the treatment can be given by putting a couple of drops of the solution in the end of a male catheter that is to be introduced, and the end closed with a little vaseline. With a small wire tipped with rubber to act as a plunger, the solution can be forced out at the desired location, as the sensitiveness will show.

When using sufficient of the solution to cover the entire canal over even a short distance, as must sometimes happen when the injections are used, the sound should be introduced every fourth day until the action of the medicine has ceased, to prevent the possible occurrence of a stricture.

SPERMATORRHŒA

The subjects of this so-called "spermatorrhœa" are almost invariably hypochondriacs—patients who,

having developed some derangement of the sexual organs as a result of masturbation, ungratified sexual desire, dallying with women, or sexual excess, notice and magnify the symptoms, and, through ignorance, regard physiological manifestations as evidence that they are losing their manhood. The concomitant mental distress produces disturbances of the digestive system, muscular pains, headache, pain in the side and back, general debility, and similar symptoms of a neurasthenic type. The mucopurulent drop so characteristic of the last stage of chronic urethritis; the fluffy shreds found in the urine with this condition; amorphous phosphates, because of their "milky-white" appearance; amorphous urates, because of the "thick" appearance they give the urine; and even the normal flocculent cloud of mucus precipitated in urine that has stood awhile are credited by the overwrought imagination with being semen.

Prostatorrhœa is the most common cause of error, from the drop of fluid that appears while straining at stool, especially if it contain a few spermatozoa. A positive diagnosis of spermatorrhœa should not be made until after several frequent examinations of the suspected drop. Over-distention of the seminal vesicles and ampullæ, together with a patulous state of the orifices of the ejaculatory ducts, may allow

the loss of a small amount of semen from the pressure exerted while urinating or at stool. Semen may be normally forced out with the urine without coexisting prostatorrhœa.

The *diagnosis* can only be made by the microscope, frequent examinations being made for some time.

The *treatment* is practically that of prostatorrhœa. It includes local and general measures: sedative measures first, and tonic afterwards. Galvanism and faradism are beneficial in some cases.

For a relaxed condition of the openings of the ejaculatory ducts, painting with the strong silver solution given under treatment of prostatorrhœa is effective treatment, together with the other measures given under that heading.

NOCTURNAL EMISSIONS

A great many authorities agree that if emissions occur during sleep oftener than every ten days they are due to a pathological condition, which should be treated.

The general *causes* of nocturnal emissions that are pathological are anæmia or any similar condition that will lower the vitality, hyperæsthesia of the prostatic urethra, stricture, and in fact any of the conditions which bring on a prostatorrhœa or impotence.

Treatment.—The treatment is in every way similar to that of prostatorrhœa. The prescription containing the bromide, citrate, and atropine will be found to be as near a specific as can be found in the medicine line for nocturnal emissions. This with the salix nigra as an alternate medicine, coupled with the use of the sound and such other treatment as the cause will demand, will almost invariably give good results.

Various mechanical contrivances have been advertised as sure cures for nocturnal emissions.

One of these is an instrument applied to the back to keep the sufferer from lying on that part of his body, as this position is a common one in which the patient finds himself at the time emissions occur. A number of spools, four or six, are bound together in the form of a square. These are tied over the lumbar region. This will cause sufficient irritation to awaken the patient should he lie on the back.

Another, and possibly the best contrivance yet offered for sale, is a ring made a little larger than the circumference of the flaccid penis. On the inside of the ring are sharp projections, which prick the organ when an erection takes place and awaken the person. He should now remove the instrument, urinate, and replace it before going to sleep.

In certain cases I find it necessary to prescribe

this kind of treatment, and then explain to the patient how he can manufacture one which does the work as well as that advertised for sale for from five to ten dollars. A piece of tin half an inch or more wide, and of a sufficient length to make a ring of a circumference to suit the individual, is perforated in a dozen or more places with a somewhat blunt-pointed instrument; a small nail will answer. The displaced tin can be elevated to the desired height and sharpened, thus forming the projections. The tin is now bent in a circle to the desired diameter, and held in position by hooks soldered to the tin where the ends come together, or tied with a string which perforates an opening made near each of the two meeting ends. It can be lined with a thin layer of absorbent cotton.

This is a very valuable instrument,—so pronounced by several young men who have applied to me for relief. I would not depend on it entirely, for there are usually general and prostatic hypersensitiveness and other conditions which require medicinal and other treatment besides the preventive.

IMPOTENCE

The *causes* of this condition are various. The atonic, paralytic, or paretic, psychic, symptomatic, etc., are the usual forms.

The psychic is due to the predominance of the cerebral inhibitory centres. Irritable impotence results from undue excitability of the nervous centres, and is generally due to habitual masturbation or excessive venery. In this form the semen is ejaculated before entrance to the vagina can be effected and the erection rapidly subsides.

The symptomatic form is due to the use of some drug, such as opium, or to some disease.

Treatment.—Galvanic or faradic electricity is of considerable benefit in some cases, one pole being placed over the perineum, the other moved about over the sexual organs and pubic region; or a bulbous sound, protected by a rubber covering throughout its length except at the bulb, is introduced into the urethra as far as the prostate, and the electricity given in this manner.

In all cases of the irritable type the patient should be given the sedative treatment recommended for prostatorrhœa. He should be made to understand that a long rest to the sexual organs is absolutely necessary if he is to receive any benefit, and then with the tonics, sedatives, sounds, electricity, baths, etc., try to bring his health up to the standard. If the man be young or middle-aged, results can be promised if directions are followed.

It is almost useless to offer prescriptions which are

on the aphrodisaic order, for almost every variety of formula is now being furnished to the physician by the physicians-supply houses, and almost all that are offered have that kind of an action; but, nevertheless, I will give a few that I think are the best now in use.

℞ Zinc phosphide, gr. $\frac{1}{8}$;
Ex. damiana, gr. ii;
Ex. nux vom.,
Cannabin, āā gr. $\frac{1}{10}$.—M.
Make into one tablet.
S. One before meals and at bedtime.

The tablet can be given an irritative action by the addition of one-fifteenth of a grain of cantharides.

℞ Zinc phosphide, gr. v;
Ferri sulph., ʒi;
Quinine sulph., gr. $\frac{1}{2}$;
Strych. sulph., gr. i.
Ft. pil. No. xl.
S. Two after meals.

In some cases from two to four drachms of the fluid extract of damiana three times a day act better than any other remedy.

GONORRHŒA AND GLEET

These two diseases are common ones which come to the specialist for treatment. Many long-standing cases are made so by improper treatment or carelessness on the part of the patient, and every one in a community who treats these cases has a chance at some one case.

No one's success in treating these cases depends upon the possession of a particular remedy which acts as a specific, but is due to the fact that he is expert in treating or avoiding complications, in noting the stage of the disease he is treating, and in changing the treatment to fit the condition as the disease develops or progresses.

Too many patients are given the same old astringent injection, without regard to the acuteness or chronicity of the disease, its complications, or its actual cause, and if the patient gets well it is in spite of, and not from the curative action of, the medicine. The patient usually is perfectly ignorant as to the true course taken by the ordinary case of gonorrhœa, and imagines that there are plenty of remedies that will abort the disease at once and at any stage, and, if relief is not secured at once, he starts on his rounds of the doctors, and many times ends up with the advertising specialist, who is acute

enough to take the case by the month or cure it for so much.

I think that no physician should undertake the treatment of these diseases at so much for each prescription, but so much for each case. He should instruct the patient that more cases will require treatment for one or more months than for a less time. Then the case can be frequently seen, complications met, and the stages treated as they develop.

A patient, and the doctor also, may think the case is gonorrhœal when in reality it is a urethritis, having a traumatic, chemical, toxic, chancroidal, or syphilitic origin, or be due to one of the other bacteria. The microscope at once settles this, and enables one to say whether a few injections or simple treatment will rapidly effect a cure, which will be the case if it have some other cause than the gonococcus, or that the disease is sure to need treatment for a few weeks, which will be the case if the gonococci are found.

The routine prescribing of Swift's soluble bougies or James's one-night gonorrhœa cure, which are highly recommended by the physicians-supply houses in the doctor's vicinity, should be discontinued. These remedies are all right in their place, but nothing but a knowledge of their composition

and strength will allow of their use in any case through all its stages.

ACUTE GONORRHŒA

The patient should receive some internal medicine, the nature and strength of which must depend on the severity of the case. For a beginning case there is nothing better than aconite and the bromide and citrate of potassium.

℞ Fld. ex. gelsemium, ʒss;
Spts. nitrous ether, ℥ss;
Tr. aconite, gtt. xv;
Potassium bromide, ℥ss;
Syrup,
Water, āā q.s. ad ℥iv.—M.

S. Teaspoonful in half a glass of warm water every three hours.

Methylene blue is of great value in the beginning of a case when the microscope has demonstrated the presence of the gonococci. It will not abort the disease, but will cause a prompt disappearance of the specific cause.

Or the following may be given:

℞ Tr. aconite, ʒss;
Potassium bromide, ℥ss;
Potassium citrate, ʒii;
Water, q.s. ad ℥iv.—M.

S. Teaspoonful in a glass of water every three hours.

This formula should not be used long enough to produce an alkalinity of the urine, for cystitis might be the result of a non-acid urine.

Hot-water injections several times a day are better as early treatment than the use of astringents. Excellent results can be gotten many times by this treatment alone. The water should be as hot as can be borne.

The injection treatment of acute cases should be of an anodyne character, as the following:

℞ Atropine sulph., gr. ii;
Bis. subnit., ʒii;
Mucil. acacia,
Distilled water, āā ʒii.
Shake well. Inject three times a day.

Two drachms of the tincture of opium can be substituted for the atropine in the above prescription or added to it together with the last-named drug.

Morphine sulphate and cocaine may be used in suitable proportions for the same purpose.

It is sometimes very advantageous to add a mild sedative astringent, such as four grains of lead acetate.

During the increasing stage of gonorrhœa, if injections are used, they should be of a very mild nature. The double chloride of mercury 1 to 30,000

in glycerin and water is as strong as should be used.

In the stationary stage the strength of the astringent can be increased.

It does not matter so much which astringent is used, but stress should be laid on the method of using it.

The zinc baths are probably as much used as any; many specialists prefer zinc sulphate; with others the sulphocarbolate or iodide gains precedence.

Silver nitrate is preferred by many as a routine injection.

The new silver preparations are far better than any of the old astringents. Argonin, protargol, and many similar ones put up by physicians-supply houses are very efficient.

Many prefer a bougie three inches in length and of a diameter that will allow it to be easily introduced into the urethra. These are composed of sedatives and astringents in varying proportions. This is a good method of treating some cases and offers the advantage of being cleanly. The following is the formula of a bougie used by an advertising specialist of the writer's acquaintance. He claims never to use any other form of treatment, and reports that in his hands this gives better results than any other method.

℞ Zinc sulph., gr. ½;
Boracic acid, gr. ii;
Carbolic acid, gr. ¼;
Antipyrin, gr. i;
Mur. hydrastine, gr. i;
Morph. sulph., gr. ⅛;
Oil theobroma, q.s.—M.
Make one suppository.
S. One should be introduced every four hours.

I think that suppositories and deep urethral injections are both poor treatment while the case is acute or in the increasing stage. Usually the introduction of even the soft rubber catheter or a suppository that is sufficiently stiff will cause more trouble than it will give benefit after dissolving.

As soon as the acute symptoms begin to subside, local treatment of a more pronounced order is to be undertaken.

If it is thought desirable to use treatment in the form of a suppository in the acute stage, the following will be found to be an ideal one, and will give good results if the inflamed condition of the urethra will allow of its easy introduction.

℞ Ex. belladonna, gr. iii;
Pulv. opii, gr. xii;
Ichthyol, ʒi;
Oil theobroma, q.s.
Make 12 suppositories.
Introduce one each day after urinating.

During the decreasing stage the astringent suppository is an ideal one.

Abortive treatment has been recommended. This consists in using a pressure injection of hot permanganate of potash solution 1 to 4000. Distention of the canal caused by several drachms of the solution being forced into it at one time and held in for several minutes, it is claimed, reaches the most remote affected part and causes a rapid subsidence of the symptoms. This may be true in some cases, but in many patients even the mild permanganate solution will superinduce an inflammatory condition of the periurethral structures, accompanied by a congested, irritable condition of the canal, attended by a most intractable watery discharge, mucoid in character, which often proves most rebellious to treatment. Relapses after cessation of irrigations are quite common.

CHRONIC GONORRHŒA AND GLEET

The chronic form of this disease is more easily remedied than are the more severe acute cases, especially if an immediate cure is attended.

If the condition be a posterior urethritis, many cases are best treated by the use of the astringent bougie mentioned under acute gonorrhœa.

The sulphate of thallin in from 15 to 25 per cent. solution is probably second to none as an antiseptic

and astringent for the routine treatment of chronic inflammations of the posterior urethra. The new silver preparations in solutions of varying strength, injected or applied through an endoscope, are of benefit, as are also sulphate of copper and silver nitrate.

Iodine in glycerin, three grains to the ounce, applied to the urethra through the endoscope, will favorably influence some cases which resist other treatment.

Internal Treatment.—The patient should receive internal treatment, and the following formulæ will be found to be the ones most commonly employed by the best specialists.

℞ Liquor potassæ, ʒv;
Tr. nux vom., ʒiii;
Fld. ex. pichi, ℥i;
Mix. calisaya, q.s. ad ℥iv.—M.

S. Teaspoonful in water every two hours.

℞ Amm. benzoate, ʒii;
Fld. ex. cubebs,
Tr. eucalyptus, āā ʒii;
Ex. glycyrrhiza, ℥i;
Syrup, q.s. ad ℥vi.—M.

S. Tablespoonful in water after meals.

℞ Methylene blue,
Oil of sandal wood,
Oleoresin of copaiba, āā ʒi;
Oil of cinnamon, gtt. xx.—M.

Make 20 capsules.

S. One after meals.

℞ Salol,
Balsam copaiba, āā ʒiv;
Oleoresin of cubebs, ʒii.—M.
Make 24 capsules.
S. One after meals.

General Remedies.—There are many similar formulæ that could be given of the various tablets, pills, and capsules which it is claimed have a specific action, but they are always made up of some or all of the following remedies: Cubebs, sandal wood, methylene blue, salol, alum, matico, turpentine, eucalyptus, the benzoates, and lithium salts, and others of similar action but no better.

The best action is not gotten from the routine prescribing of a bunch of remedies, but by fitting in as accurate a manner as possible the one remedy to the condition or disease.

There is one other important point about which many physicians are very careless, and that is the patient's hygiene. Absolute cleanliness is absolutely essential. The clothing of the patient should be protected from the discharge by appropriate dressing. Frequent washing with very hot water should be strictly enjoined. All highly seasoned foods and alcoholic liquors and beers should be prohibited. The digestion should be watched, and the bowels kept regular. If all these precautions have been

taken, the first step will have been made towards giving the patient a scientific course of treatment, which is far better than the usual routine one formula of the quack or careless doctor.

STRICTURE

This is of two kinds, organic and spasmodic. For a complete description of this condition the reader is requested to read any of the works on genito-urinary diseases. In this article only the methods of the advertiser will be given or peculiar methods not usually given in the texts.

It is claimed that solvent remedies are in use that will completely cure stricture of any kind. All of these solvent remedies are carica papaya, glycerole of papoid, and cineraria maritima. The latter has been brought into use as a solvent of strictures since receiving such high praise as a cataract solvent.

The urethra is first dilated with as large a steel sound as can be introduced, and then a few drops of one of the remedies is deposited opposite the stricture. This is done every fourth to sixth day until cure is complete. Whether the cure is brought about by the gradual dilatation or from the use of the remedies or by both is left to the reader, but the writer believes from experience that they do have a curative action.

Before using the sound a few drops of fluid extract of hyoscyamus injected into the urethra will make its introduction more easy. A one per cent. solution of cocaine will be sufficiently anæsthetic to allow of the use of a much larger sound.

If the patient has a contracted meatus, it should be cut before using large sounds; even a moderately large external opening should be enlarged in this manner, for it is at this point that the greatest pain is experienced when large sounds are introduced.

Before cutting the meatus, a piece of cotton saturated with a ten per cent. solution of cocaine should be applied for a few minutes to the point where the incision is to be made.

SEXUAL CASES

The physician will many times be consulted concerning the condition of the sexual organs by young and middle-aged men, who are trying to cure a supposed weakness or genuine abnormality by keeping constantly on hand a plenteous supply of medicines for the cure of lost manhood. This is gotten first from one and then from another advertising specialist or nostrum vender, until, after a decided failure on the part of this form of treatment to bring about a change in his mental and physical condition, the patient, as a last resort, determines to consult his

home physician or some other one near by in whom he has confidence, to see if a cure cannot be effected in this direction.

Many physicians will inform these men that there is nothing wrong, and if they would keep their minds free from worry for a time they would be all right. They allow them to leave the office to continue the former form of treatment or consult the next physician, who, if posted on such matters, will give the proper treatment. He will get the money that would have gone in another direction, and will have the everlasting gratitude of the patients.

I have treated a great many such men, and never neglect to at once bargain with them to place their sexual organs in as normal a condition as possible.

I will now give a description of several cases showing the method of handling these patients.

Case I.—This case is that of an unmarried man, age twenty-eight. He had gone the rounds of the nostrum venders and advertising specialists, and, not getting what he deemed to be good results, determined to consult his home physician. I being the family doctor, he came and gave me a complete history of his case.

The man had indulged excessively in sexual intercourse around the early *twenties*, and told me un-

asked that he had frequently practised self-pollution when a boy. To this latter vice he attributed his present weakened condition.

This man had from two to six involuntary night emissions each week and an occasional indulgence in sexual intercourse, the latter for the purpose, he said, of noting whether any change was being made in his condition by his former treatment. He said that there was absolutely no sensation at these times, that the emission was always precipitate and erections incomplete. Complete or satisfactory intercourse was to him an impossibility, and he now feared that the condition of the sexual function could not be bettered by any form of treatment.

I told the young man that, if he would follow my directions for four months, I would institute a treatment that would make a change for the better in his present condition. ("With this class of cases it is always best to bargain to treat the case over a period of several months and to demand payment in advance. Otherwise a number will discontinue treatment after a few days or weeks, and your results will be no better than those with whom the patient formerly treated.")

Examination of the sexual organs revealed very small testicles and a shrivelled penis which had a

cartilaginous feel. ("This latter condition is characteristic with this class of patients.")

I now introduced a No. 16 French steel sound and noticed several very tender points throughout the urethra, and when the prostatic portion was reached the patient almost fainted, the hypersensitiveness being so great.

The patient was then given the following formula, to assist in overcoming the sensitive condition and to control the emissions:

℞ Kalium brom., ℥ii;
Kalium cit., ʒiii;
Atropine sulph., gr. ⅛;
Syrup,
Water, āā q.s. ad ℥iv.—M.
S. Teaspoonful after supper and at bedtime.

This patient came for treatment every fourth day for several weeks; then the interval was lengthened to one week for the remainder of the time of treatment.

As rapidly as possible a larger sound was used until a No. 31 F. could be introduced. Then the size was changed to a 28 F. for a few times, and this form of treatment discontinued.

The young man was instructed to keep on hand a supply of the bromide prescription and take occa-

sional doses to prevent a possible occurrence of frequent emissions.

This patient has been married several years and reports complete satisfaction from every quarter.

Case II.—This case is that of a young man, age twenty-four, a school-teacher by profession. He had patronized the nostrum vender and advertising specialist to excess, and finally abandoned this form of treatment. About one month after he had discontinued the use of those remedies he came to the conclusion that he would consult a physician about his condition, and came to me for that purpose.

He complained of the frequent loss of what he thought was seminal fluid. This occurred while at stool or at the time of an erection. He also had from two to six involuntary emissions each week.

Examination of this patient revealed a contracted meatus and a very tender prostatic urethra. The penis was small while in the flaccid state and had the cartilaginous feel spoken of in Case I.

This patient's psychical condition needed as much attention as did the symptoms spoken of above, he being almost on the border of hypochondriasis. I assured him that his condition was not serious, but emphasized the point that several months of treat-

ment would be necessary to bring his health to his normal standard.

Microscopical examination of the oozing fluid was negative as far as spermatozoa were concerned.

A ten per cent. solution of cocaine on absorbent cotton was held against the meatus for five minutes. Then it was enlarged by being cut both ways with a sharp-pointed bistoury.

The soundings were begun with a No. 16 F. and gradually increased until a No. 30 F. could be introduced; then a smaller size was used for a few times.

The bromide formula prescribed for Case I. was also used in this case.

As the patient noticed one symptom after another leaving he began to have confidence, and what had been a pronounced hypochondriac condition of mind changed to one of a very buoyant character.

In this case massage, cold sponging, and plenty of out-door exercise were prescribed.

Case III.—A married man, age twenty-nine, consulted me several years since in regard to his sexual system. He said that at times he noticed an abundance of mucus in the urine after it had stood for a short time. He complained of a feeling of irritation in the region of the prostate which at times amounted to a severe pain. At these times he would

have to go to bed and make poulticing applications of flaxseed meal until the symptoms abated. No exploratory examination had ever been made by any one who had prescribed for him at these times.

The man had been married several years, and both himself and wife wished for children, although none had come to bless their union.

The man had been diseased with gonorrhœa several years before marriage, and from his explanation of the manner of treatment of the case at that time I judged that the cauterizing effect of the injections used was responsible for what seemed to be his present condition.

Examination with a very small bulbous sound revealed a very narrow organic stricture at the bulbo-membranous junction.

The patient was told to save his urine for examination, a specimen to be saved from the morning quantity and always to be the settled portion. In one of these specimens the microscope demonstrated a large quantity of semen. The man said that on the night preceding he had indulged in sexual intercourse. This fact merely brought out more clearly the idea that it is possible for a very narrow stricture to prevent the escape of the semen during copulation, but instead it takes a backward course and

enters the bladder and is voided with the urine when the bladder is next emptied.

The stricture was divided with Otis's dilating urethrotome to the size of a No. 30 F., and kept in that condition by the introduction of a steel sound No. 28 F., every four days for some time. The patient made an uninterrupted recovery and has had none of the symptoms with which he was formerly troubled. His wife has since borne one child, conception taking place shortly after his recovery from the stricture operation.

Case IV.—This is a case of impotence. The man was forty-two years of age and a bachelor at the time of treatment. He had been contemplating matrimony for a time, and was holding off on account of sexual weakness, as he termed his condition. He had visited several advertising specialists, who had prescribed for a long time with no benefit. Patent nostrums had been freely patronized, with results similar to other forms of treatment.

He came to me for advice, and requested treatment if I thought medication would improve his condition to some extent.

This man had made several attempts to have sexual intercourse, but was unable to produce an erection, and gave up in disgust. He said the efforts

were made to prove whether or not he had the ability to fill that part of a husband's duties. He had occasional involuntary night emissions, with absolutely no sensation. The involuntary night emissions had shown only a small amount of semen, hardly being sufficient to stain the clothing. His last voluntary emissions had been precipitate and without sensation.

The testicles were small, flaccid, cold, and relaxed. The penis was small and had the cartilaginous feel noted in the other cases. The meatus was contracted, but there were no sensitive areas throughout the canal when explored with a small bulbous sound.

The man was given a half-drachm of bromide of sodium and a small dose of atropia at bedtime every day for a few weeks, and at the same time the syrup of the hypophosphites was taken at meal-time in large doses.

Cold sponging, out-door exercise, and massage were each day thoroughly employed.

The cold steel sounds were used every fourth day for several weeks. The size was gradually increased until a 33 French was introduced. The meatus was cut just before the gradual dilatation of the urethra was begun.

This sort of treatment was kept up for seven or eight weeks, except during the last three weeks no

bromides were given, the tonics only being regularly taken. At the end of this time the man said he was no better, and he thought that he was completely and incurably impotent, and said that he would discontinue treatment. I informed the patient that he had best continue for a few weeks longer, and if he was not benefited we would then drop his case.

I began by using the galvano-faradic current. The electrode connected with the negative pole of a galvanic battery was placed over the sacral region and a large one connected with the positive pole placed firmly upon the under surface of the testicles and penis. This was kept up for fifteen minutes. The galvanic current was also passed directly through the testicles. This method is indicated when there are present the cold, flaccid, relaxed testicles and diminished secretion of semen. The penis was treated with the faradic brush on the days that the other treatment was given, and central galvanization and general faradization were also administered several times each week. After six weeks of this form of treatment the patient would frequently have an erection while the sacral and under surface of the testicles were being treated.

The nourishing food, tonics, massage, baths, etc., were kept up throughout the treatments. The interval between these was gradually lengthened until

the patient considered himself sufficiently healthy to enter the matrimonial state. The man reports that his present condition is almost a normal one, and a more grateful patient it would be difficult to find.

Case V.—The subjects of spermatorrhœa are almost invariably on the hypochondriac order. They have developed their supposed condition by masturbation and dallying with women or by ungratified sexual desire and sexual excess, and, the effects of these indulgences becoming noticeable as the resulting derangements present themselves, the patient naturally thinks that the mucous discharge is semen. Nevertheless, an occasional genuine case of this condition will show up for treatment, and this case is a description of one.

The patient was a man, age twenty-five, who gave a history of having practised and indulged in all kinds of sexual excesses and vices from early boyhood, and, as a consequence, was losing semen, which happened many times when there was no straining or erection present.

Examination of the suspected fluid showed the presence of spermatozoa. These were present in almost all the specimens examined.

Exploratory manipulation with a small bulbous

sound revealed the presence of areas of hypersensitiveness, which, however, was not present to a marked degree in the prostatic region.

This man had a very close foreskin, the opening in which would not allow of its being slipped over the head of the penis. A string was tightly tied around the penis three inches from the glans, and, when the distal end of the organ began to feel numb from the shutting off of the circulation and the pressure exerted on the nerves, the man was circumcised. The foreskin was found to be adherent to the glans, and when this adhesion was broken up the presence of a substance was noted resembling a mixture of cheese and pus.

The man was now treated in the usual manner with the sounds, beginning with the smallest and gradually increasing until a 33 F. could be introduced. At the same time the bromide and atropia prescription was given after supper and at bedtime. General faradization was employed for a time and then general galvanization was substituted. Massage, cold bathing, diet, etc., were given proper attention.

Considerable improvement was noticed in the patient's personal appearance, but occasional microscopical examinations of oozing fluid revealed the presence of spermatozoa.

The bulbous sound was now introduced. The

wire between handle and bulb was insulated with a soft rubber catheter. This was fastened to the negative pole of a faradic battery. A wet sponge was placed over the pubic region and to this was attached the positive electrode. After five minutes' treatment in this manner the poles were changed and the treatment continued another five minutes. This was kept up for several weeks, without much lessening in the number of spermatozoa present in the oozing fluid.

The endoscope was now brought into service and through this instrument applications were made to the openings of the ejaculatory ducts of a solution of silver nitrate containing forty grains to the ounce. The treatments were given with cotton twisted on the end of a slender nasal probe, care always being taken to squeeze the cotton after being dipped in the silver solution until all excess was removed, and the almost dry cotton was touched to the diseased surface. In this manner the fluid would not run to contiguous parts of the urethra, from which a stricture might have resulted.

These applications were made every four days for a half-dozen treatments and the interval was then lengthened to one week for four weeks more. At the end of this time there was no more abnormal discharge of any nature.

REMARKS

A description of the above cases has been given to show the different forms of treatment to which it is necessary to resort to get results in cases having a variety of causes, and to show how necessary the important point of diagnosis must be considered to enable the physician at once to determine what class of treatment shall be given to bring the case to a favorable termination.

It is necessary that every person who has or thinks he has an abnormal condition of the sexual organs should receive a course of treatment extending over a lengthy period of time. In that time the functional, organic, or psychical conditions can be brought to the normal by such measures as are indicated, or sufficiently so to cause the patient to believe that all functions have been brought back to as healthy a condition as it is possible for them to experience.

SYPHILIS

The routine treatment of this disease is with mercury and the iodides, and many times everything is expected from the medicines; but strict attention to the general health far outweighs in importance the question of drugs. Nutritious and digestible food, a very restricted use of alcoholics, daily sponging

with salt water, followed by rubbing with coarse towels, are important points that should be given decided emphasis in the treatment of this disease.

Mercury holds first place in the estimation of almost all syphilographers for the relief of symptoms and radical cure of the disease. The protiodide in doses of one-tenth of a grain gradually increased to one-third grain after meals, and continued as the patient tolerates the remedy, is probably the best method of prescribing mercury and the best form to use.

When not contraindicated, iron can be given to syphilitics with decided benefit. The citrate of iron and quinine may be given with the protiodide or one-sixtieth to one-twelfth of the bichloride used instead.

The tannate has a more beneficial action on some cases than other forms of mercury. The beginning dose is one-fourth to one-half grain three times a day.

Inunctions of mercury are of advantage because the stomach is spared the irritation, and many times persistent lesions refuse to yield to other methods of administration. Courses of twenty inunctions should be taken one each day. A fifty per cent. ointment should be used, having lanolin or vaseline as the base. To avoid producing a dermatitis, it should be rubbed into different parts of the body, preferably under the arms and on the inside of the thighs or

where the skin is thin. Better results will follow if hot salt-water baths are given each day while using the inunctions. In some cases it will be necessary to discontinue this form of treatment for a few days or to make the intervals between rubbings longer.

Many cases that resist all forms of treatment can be cured by the injection of one-twentieth of the bichloride of mercury hypodermically three times a day, varying the dose to suit the case.

Vegetable Treatment of Syphilis.—There are many preparations now gotten out by the different physicians-supply houses which are claimed to be specifics for this dreaded disease in any stage. They are of purely vegetable composition and certainty of action and strength.

The common use of this class of remedies started when Dr. J. Marion Sims, in an article read before one of the medical societies, claimed to have gotten wonderful results from the use of a remedy, the formula of which had come down from the Indian doctors of the Creek nation.

The following is the formula:

℞ Fld. ex. smilax sarsaparilla,
Fld. ex. stillingia sylvatica,
Fld. ex. lappa minor,
Fld. ex. phytolacca, āā ʒii;
Tr. xanthoxylum, ʒi.—M.

S. Teaspoonful before meals and at bedtime.

A great many people claim that the above is the formula of the much-advertised S. S. S. But as analyzed by several prominent chemists this remedy is shown to be made up of stillingia, poke root, sarsaparilla, nitrate of potash, a small quantity of iron, and sufficient alcohol for its preservation.

One of the best vegetable preparations known of by the writer is composed of the following ingredients:

℞ Tr. echinacea angustifolia,
Fld. ex. berberis aquifolium,
Fld. ex. stillingia sylvatica,
Fld. ex. rumex crispus,
Fld. ex. phytolacca decandra, āā ℥ii;
Fld. ex. cascara sagrada, ℥i.—M.
S. Teaspoonful four times a day.

Many physicians will not prescribe mercury or the iodides on account of the irritation of the stomach and intestines that is caused by the use of these remedies, and depend on the vegetable remedies entirely. But, no matter how high some one remedy has been lauded as a specific, cases will be found that will not get well unless some other is used. The case must be studied, and not only different remedies will be necessary as the case progresses, but different methods of administering them will be found equally important.

The iodides in the second and later stages are very valuable remedies. Large doses should be given to be of best service: all that can be tolerated should be prescribed. In some cases this will reach two hundred grains a day, when it is given well diluted and in divided doses.

HERNIA

The treatment of hernia without the knife was first proposed and practised by a Dr. Gage, who injected oil of cloves, which succeeded to a remarkable degree in effecting a cure of many very bad cases of hernia. Professor Pancoast afterwards was the first to use tincture of iodine for the same purpose. Dr. Heaton was the first advocate of white-oak bark injections, and his reports show many cases completely cured.

A number of deaths have been reported from the injection of hernial openings by the doctors who were the first to use these methods, and also by some of the more modern physicians. Whether this has been due to inexperience or while experimenting too much fluid has been injected, or whether it has been improperly placed, thus setting up a peritonitis or other serious condition, probably no one but those who gave the treatment will ever know. In my opinion, any rupture that can be retained by a truss can be cured by properly injecting the proper medicine.

After the originators of the injection method had gotten bad results in several cases, they were slow

about continuing this form of treatment, and it gradually fell into disuse, but has now been revived, and is being successfully practised by numerous physicians.

Clean solutions and modern antisepsis all around have made many operations possible and safe which a number of years since dared not be undertaken, and this is one of them.

With our instruments and solutions boiled and the site of operation aseptic, we need not fear to use these methods, which a number of years ago gave a mortality due to infection.

A cure by the injection method is brought about by irritating or astringent medicines which excite sufficient adhesive inflammation to close the canal.

The first thing to which to give strict attention is to supply the patient with a properly fitting truss, for, if the bowel or former canal contents be allowed to gain entrance only temporarily, progress is retarded, and in many cases the hernia must be entirely retreated.

Do not allow your patient to accept a truss that will not perfectly hold his rupture in the desired position while he assumes any attitude or position possible,—that is, by separating the limbs and squatting or stooping, rising suddenly, and coughing for several minutes while going through these move-

ments. If the hernia is retained after making these movements, the injection method will give results.

While the patient is under treatment the truss should not be removed night or day, except at the time of treatment or when it is necessary to give attention to the inflammation excited by the injection. At these times the patient should be in the recumbent position, and he should so remain until the truss has been properly reapplied.

If any physician will follow the directions given in the preceding and following pages, he will have no difficulty in effecting a perfect cure in 90 per cent. of all hernial cases where the canal is not so large that its obliquity is lost.

INJECTION REMEDIES

Many remedies are used for the treatment of hernia by the injection method, and ofttimes the remedy is too strong or is unnecessarily so. A remedy capable of exciting a mild inflammation or irritation, of such a nature that a plastic or adhesive material is thrown out in sufficient quantity to cause union to take place, is the one to be invariably preferred.

From the time when Dr. Gage used his first injection of oil of cloves and Drs. Pancoast and Heaton their iodine, cantharides, and oak bark, many other

single remedies and formulas have been advocated and territorial rights offered for sale by their originator. The writer is acquainted with a number of men who include the injection of hernias as a part of their special work, and all claim the best results from the following fluid, which each one claims he purchased from an advertising specialist now retired.

I think that in this formula we have the astringent, antiseptic, and irritant qualities in sufficient degree to set up a mild adhesive inflammation, and, when carefully introduced at the proper place in the hernial opening and attention given to after-treatment, good results can invariably be expected.

℞ Carbolic acid, gtt. xii;
Zinc sulphate, gr. xx;
Thuja (Lloyd's), ʒii;
Guaiacol (pure), gtt. xxx;
Fld. ex. quercus alba (P. D.'s),
Glycerin, āā ʒiv;
Cinnamon water, q.s. ad ʒii.

Dissolve the zinc sulphate in the cinnamon water, add the glycerin, carbolic acid, and guaiacol, shake thoroughly until mixed, and add the other drugs.

This can be used at once, but it is best to allow it to stand for several days, occasionally agitating it and finally filtering through paper. It possibly is

not necessary to boil the solution before injecting, but probably is better to do so.

DIRECTIONS FOR TREATMENT

After the patient has been supplied with a properly fitting truss he is ready for the operation, and not before that time.

A surgical chair or table can be used, or any table that will cause the patient to lie with the head and chest so much lower than the remainder of the body that the bowels will gravitate away from the hernial opening. The site of injection should now be thoroughly scrubbed with soap and water, the parts washed with alcohol and then with the double chloride of mercury, one to one thousand. The hands of the operator should receive similar treatment. The hypodermic syringe and needle should be made aseptic and all precautions taken against sepis as for a major surgical operation. The needle selected with which to make the injection should be of a length to suit the individual case, some requiring a longer needle than others.

After filling the syringe with the solution be sure to remove all the air from the syringe before the injection is made. This is done by turning the needle point upward and pressing on the plunger until a drop of the solution appears at the point.

The operator should now introduce the forefinger through the external ring and introduce the same as far in the canal towards the internal ring as possible. The needle should be introduced at a point near the internal ring and the injection made as close to it as possible, but at different spots in the canal.

To prevent injury of the cord, care should be taken to raise the outer wall of the canal as far as possible with the introduced finger when making the puncture and depositing the medicine. Rub the part, after withdrawing the needle, to cause a scattering of the fluid, and reapply the truss. If this be a properly fitting one, the patient need not be detained from business.

The amount of fluid to be used with each treatment will depend somewhat on the case, but ordinarily three or four drops are sufficient with which to begin the treatment.

After treatment there may be a feeling as if the parts were being irritated. This is due to the slight inflammation which the fluid has caused. In almost all cases this will disappear in a few days, when the second treatment should be given, and so on until a cure is brought about.

In some cases a few drops will be sufficient to produce a mild inflammation, and in others it will take

Injection of hernial canal, showing left finger in the canal and the hypodermic needle at the point where it is to be introduced.

ten, but it is well to begin with the small amount and increase as the case demands.

The second and following injections should not be given as long as there is an uneasy feeling present from the previous treatment. Experience with the individual case will soon teach the operator the amount of medicine to use and the time to use it.

If much inflammation is produced it shows that too much of the fluid has been used, but this can usually be easily remedied by putting the patient to bed or ordering him to be quiet for a few days.

About five drops will be the amount that it will take for each treatment of the average case.

The length of time that it takes to get curative results will depend greatly on the size of the hernial opening to be closed, while the patient's youth and vitality will also have much to do with getting rapid results.

In the majority of cases, a month's time and as many injections as are necessary and can be given during that time will suffice to permit of a test being made to ascertain the amount of progress that has taken place. This can be done by placing the hand over the opening and exerting sufficient pressure to take place of truss. The patient, being in a standing position, is instructed to cough. If there has not been sufficient closure of the canal, considerable

impulse or vibration will be produced and further injections are necessary.

After the doctor is satisfied that the case is cured, as far as medicine is concerned, the patient should be instructed to continue wearing the truss for a time, especially if his business be such that much straining is done while at work.

Sometimes the case will require but two or three injections, if the truss be a perfect fitting one and the opening small. In all cases the truss should be worn several months after medicinal measures are suspended.

A great many physicians dare not undertake to treat a case of hernia in the way described above, on account of fear of getting results similar to that produced by the injection treatment when it was in its infancy. This was prior to the time of antiseptics. This may have been the cause of the mortality, and this method would probably never have been abandoned had our predecessors been supplied with our germ-destroying remedies.

If a sufficiently small amount of the medicine be used to begin the case and the quantity be gradually increased as the case will allow, the medicine be properly placed as described above, and asepsis and antisepsis be strictly observed, the inflammation following the injections will only be of such a charac-

ter as to cause adhesions to take place, and no inconvenience to the patient will be caused or bad results follow.

THE INJECTION FLUIDS

The writer has collected a number of formula from advertising specialists and physicians in general practice who were bringing about cures of hernias without the knife, and these will now be given.

It will be noted that a number of astringent, antiseptic, and irritant remedies are used as the active principle of the prescriptions, and, no matter how much money one pays for the new formula offered by some person claiming to have a territorial right for its sale, he can buy nothing better than the one which has as its ingredients zinc sulphate, oak bark, thuja, tannin, silver nitrate, and other astringents. If the formula that has been lost to the world for a great many years and is now offered for sale be tested, it will be found to contain one or more of the drugs above as its active principle.

The writer has treated a great many patients by the injection method, and has found that it is not so much a certain remedy or formula that effects the cure, but the proper introduction of any one of the above-mentioned astringents will bring you good results.

Dr. Gage's Formula.

℞ Oil of cloves, ʒi.

S. Inject, beginning with two drops; allow an interval of several days to elapse between treatments.

Dr. Marsh's Formula.

℞ Zinc sulphate, gr. xxx;
Carbolic acid, ʒss;
Alcohol, ʒiii;
Water, q.s. ad ℥ii.—M.

S. Inject from 5 to 10 drops.

℞ Tannin, gr. x;
Guaiacol,
Beechwood creosote, āā ʒi;
Zinc sulphocarbolate, gr. xx;
Glycerin, ʒi;
Alcohol, ℥ii.—M.

S. Inject from 3 to 10 drops.

℞ Zinc sulphate,
Guaiacol (pure),
Creosote, āā ♏x;
Fld. ex. hamamelis,
Glycerin,
Water, āā q.s. ad ℥½.—M.

S. Inject from 2 to 8 minims.

Dr. Tamarini's Fluid.

This fluid has been sold to the physician at from three to five dollars per ounce. In the advertising

matter it is claimed to be made up of the following ingredients and to be compounded "by a method peculiar to ourselves."

℞ Hamamelin,
Sulphate of aldehyde,
Guaiacol iodate, āā gr. xxx;
Glycerotannate of zinc, q.s. ad ℥i.—M.
S. Inject 3 to 5 minims.

This medicine the writer had analyzed by an expert chemist, and found it to contain the following drugs: zinc sulphate, guaiacol, hamamelis, and glycerin. These or similar acting remedies are the ones that make up the formulæ that are used to cure hernia by the injection method, and no matter how peculiar the method of preparation or how distant the country from which the drugs have been imported by the persons offering formulæ or medicines for sale, they will act no better.

Dr. Heaton's Hernia Cure.

℞ Carbolic acid, gtt. v;
Fld. ex. white-oak bark, ℥i;
Solid ex. white-oak bark, ʒss.—M.
Triturate in a mortar until perfect solution is formed.

The strength of the solution can be varied to suit the case by adding the solid extract to increase the strength or boiled water to weaken the fluid.

The amount to be used with each injection is from five to ten minims, or as the case demands.

Iodine Treatment.

℞ Tr. iodine,
Water, āā ʒii.—M.
S. Inject from 2 to 4 minims.

Dr. Pancoast was the first to inject iodine for the cure of hernia and was successful in many cases.

The silver preparations are now being used in the treatment of hernia,—argonin, protargol, and silver nitrate. The latter is probably the most certain, it being more irritant.

It is best to begin with a 5 per cent. solution and to inject from three to five drops, the strength of the solution being varied to suit the case as it progresses.

A high medical authority advocates the use of zinc chloride in ten per cent. solution. Ten or twelve drops are injected into the canal. The patient is first anæsthetized, and when the injection is made the internal ring is kept occluded by pressure of the finger. The needle is introduced through the external ring and the fluid deposited throughout the canal, beginning as near the internal ring as possible. A compress is applied and the patient is kept in bed for ten days. A well-fitting truss is worn for

some time. The author of this method claims to have cured many cases of hernia by the use of zinc chloride in this manner. In many cases the opening was so large that the obliquity of the canal was lost, but fibrous adhesions took place to such a degree as to produce a cure in almost every case.

Many advertising specialists use external astringents in connection with the injection method, and the writer is positive that this furnishes great help in some cases.

Strong solutions of tannic acid or white-oak bark are generally used. The pad of the truss is composed of absorbent material. This is kept constantly soaked in the solution, and will in many small and recent hernias effect a cure unaided.

Especially in the infantile hernias is this method of treatment very valuable, as the writer can testify from personal experience with a number of cases.

DESCRIPTION OF A CASE OF DOUBLE HERNIA CURED BY THE INJECTION METHOD

This case is that of a married man, age fifty, who had been afflicted with a large double hernia for many years. He came to me to be measured for a truss, not having a thought that there might be a possible cure for his condition by measures outside

of surgery. Operative procedures he had always dreaded to such an extent that no amount of persuasion could induce him to entertain for a moment the idea of trying to get relief in that direction.

I noticed that the degree of obliquity of the canals was still present in a manner that would insure almost certain results, providing the hernias could be retained by a properly fitting truss. By careful measurements a truss was provided which perfectly accomplished this purpose.

I now informed him that there was no reason why his condition could not be brought back to a healthy one, and that in a few months it was possible that he could discard his truss and live in comfort as far as the hernial condition was concerned. His consent was finally obtained, and an injection of both openings was made with the solution the formula of which is given in the beginning of this chapter.

After the irritative symptoms subsided, "which was usually after a period of from five to seven days," the canals were again injected with from five to seven drops of the solution, the truss was replaced in proper position, and the patient instructed to give it considerable attention so that constant retention of the hernias would be possible. After three months these canals had so far closed that I think it would

have been possible for him to have abandoned the truss then, but he was instructed to wear this during the day for several months longer, when it was laid aside altogether.

This case is the double hernia illustrated in this book.

PAINLESS DENTISTRY

Hundreds of concerns in the United States and other countries are now advertising to extract teeth without pain. They claim to be in possession of a medicine the anæsthetic property of which is perfect, with no inconvenience or deleterious after-effects to the patient from its use. People, as a rule, are in intense fear of the pain that accompanies teeth extraction, and will travel miles to allow the painless dental specialist to do such work, and as a result many much more competent operators lose plenty of practice on account of a neglect or fear to use such means.

Many remedies are now offered to the dentist and physician as being ideal local anæsthetics, with assurances that they contain no cocaine and are quite inexpensive.

These remedies have been tested by many competent chemists and observers, and found to contain cocaine in proportion corresponding to the amount of anæsthesia produced.

This is a very valuable and when properly employed a perfectly harmless remedy. A number of

doctors, while experimenting with the drug, have taken as high as fifteen grains of cocaine at a single dose, and in a few hours have been entirely free from its effects.

This drug is rapidly eliminated by the body secretions and excretions, two or three hours only being necessary until it is entirely out of the system, so that a few drops of very high per cent. solutions can be injected without fear of bad results in many cases. But usually the solutions used contain more cocaine than is necessary to produce sufficient anæsthesia. Almost all of the obtundent formulæ are from one to five per cent. solutions, while all that is really necessary is a one-half per cent. or at the most the one per cent. mixture, and in many cases one-tenth per cent. is sufficient.

DRUGS TO MAKE UP OBTUNDENT

Many dentists, and some physicians who extract teeth, keep the cocaine in tablet form, and merely dissolve it in boiled water and inject without the addition of any other remedy, and as a result get a sufficiently constitutional effect from the drug to produce the nausea and other symptoms that follow in many nervous cases. It has now been proved that carbolic acid and resorcin localize the effect of the cocaine. Both drugs have an anæsthetic action

of their own, which makes it possible to get complete anæsthesia with a minimum amount of the cocaine.

Atropine in small doses is a cardiac and spinal stimulant, and is a good physiological antagonist to cocaine, and to make up an ideal obtundent this drug should be one of the ingredients.

Chloral hydrate is a valuable addition, it having similar properties to the phenoresorcin.

Nitroglycerin, on account of its pronounced action on the vascular system, should be one of the ingredients.

The formula can be made to have a slightly increased anæsthetic action by using cinnamon water as the vehicle.

So, to my mind, the following is the formula of an obtundent that is perfectly safe and equally reliable.

BEST OBTUNDENT FORMULA

℞ Cocaine hydro., gr. ii;
Atropine sulph., gr. $\frac{1}{120}$;
Glonoin, gr. $\frac{1}{10}$;
Carbolic acid, gr. xx;
Resorcin, gr. x;
Chloral hydrate, gr. v;
Cinnamon water, q.s. ad ℥i.—M.
Filter until clear.

Needle at point to be injected with anæsthetic (in painless dentistry).

If a stronger solution is desired, the amount of cocaine can be increased without a change of the other ingredients.

There are many obtundent formulæ advertised and recommended which will cost the dentist one or two dollars per ounce, but there are none that will give better results than the one given above. There are only certain remedies to use, and, if the dentist or doctor who administers the anæsthetic wishes to know the amount of cocaine that the patient receives, he had best use a formula that he compounds himself or orders mixed from a reliable source.

THE AMOUNT OF MEDICINE TO INJECT, ETC.

Molars and canines will usually require more medicine to produce anæsthesia than the others. If a single tooth is to be extracted, two minims on each side of the tooth will be sufficient, and probably three on the labial and an equal amount on the lingual side will answer when two are to be drawn.

In giving the injections, the needle should be inserted about one-eighth of an inch from the gum margin and on a line corresponding with the centre of the tooth.

I believe that every time that bad results have followed the use of cocaine it has been due to lack

of asepsis and antisepsis or to the use of cocaine uncombined with the proper drugs.

Before injecting the gums, the patient should be given a listerine or other antiseptic mouth wash. The needle and syringe should be boiled or allowed to lie for a time in alcohol. If these precautions are taken and the formula recommended above be used, operator and patient alike will be pleased with the result.

Should it be necessary to resort to measures for the relief of symptoms arising from the use of the cocaine, stimulants will be in order, and then such remedies as whiskey, amyl nitrite, nitroglycerin, or aromatic spirits of ammonia can be used, either singly or combined as the operator may deem best to meet the indications.

The sore throat, stiff tongue, faintness, sickness at the stomach, etc., are generally due to some of the medicine being squirted into the mouth instead of being injected into the gums, or may be due to natural feelings on the part of a nervous patient.

There is no history of death that has ever occurred from the use of cocaine that I have been able to find, and every doctor or dentist who has made an extensive use of this remedy a specialty reports that the mortality has been zero.

The sloughing and abscessed gums are in the ma-

jority of instances due to lack of antiseptic precautions. Sloughing of the gums is a possibility from the improper use of cocaine, but this will not happen if the above rules are strictly observed.

THE ODONTUNDER FORMULA

This much advertised local anæsthetic, as analyzed by several prominent chemists, has been proved to be made up of the following ingredients:

℞ Resorcin, gr. xx;
Cocaine,
Carbolic acid,
Tr. iodine, āā gr. xv;
Potassium iodide, gr. xxx;
Glycerin,
Water, āā q.s. ad ℥ii.—M.

There are many similar formulæ that could be given, but the essential drugs would have to be the same.

PARSONS' LOCAL ANÆSTHETIC

The following is the formula of Dr. Parsons. This remedy is to be applied to the gums with a cotton swab every few seconds for a few minutes, at which time considerable anæsthesia will result.

℞ Chloroform, ʒvi;
Menthol, gr. x;
Tr. aconite, ʒvi;
Tr. capsicum,
Tr. pyrethrum,
Oil of cloves,
Camphor, āā ʒi.

Dissolve the camphor in the chloroform, then add the menthol, then the cloves and other remedies.

THE FITTING OF GLASSES

The purpose of this article is to enable the physician to fit and furnish glasses to those of his patients who are being fitted by the travelling optician. In many instances these men are entirely ignorant of the methods whereby the vision can be corrected, and supply their patients with whatever glass they have in stock. The physician can add several hundred dollars to his income each year by buying a test case and familiarizing himself with its use.

THE TRIAL CASE

The case contains pairs of plus and minus spheres and pairs of plus and minus cylinders: also prisms numbered from ¼ to 20.

The spheres (abbreviated s.) are numbered in intervals of 0.12 up to 2 s.; from 2 s. up to 5 s. the interval is 0.25, from 5 to 8 s. the interval is 0.50 s., and as the lenses get larger the interval is greater until the greatest strength used in the ordinary test case, which equals 20 diopters, is reached. The cylinders have the same intervals, but only go to 6 or 8 D.

The trial case contains a frame which is used to place lenses in front of the patient's eyes. The eye-

pieces of such a frame are numbered on the periphery in degrees of half a circle, so that the axis of a cylinder can be seen during refraction. The left of the horizontal line in each eye-piece is recognized as the starting place or zero (0), and the degrees are marked from left to right on the lower half, counting around to the horizontal meridian, which at the right hand is numbered 180. This horizontal meridian is, therefore, as horizontal zero (0) or 180 degrees. The meridian, midway between zero (0) and 180 is the vertical meridian, or 90 degrees. The trial case also contains blanks, blinders, stenopæic slit, pin-hole disk, etc.

The frame is capable of being adjusted, the pupillary distance measured, bridge properly placed, riding bows measured, angle of nose taken, etc.

RECOGNITION OF LENSES

A convex sphere is thick in the centre and thin at the edge, and has the power of converging the rays of light. Objects viewed through a convex lens as it is moved before the eye, appear to move in an opposite direction. A convex lens is a magnifier and has the effect of making objects appear larger and closer as it is moved away from the eye, or, if brought towards the eye, objects already enlarged appear smaller and more distant.

If a convex cyl. is moved in front of the eye in the direction of its axis, objects seen do not change their position; but when moved at right angles to its axis, the objects appear to move in the same direction as when a convex sphere is used.

A concave sphere is thick at the edge and thin at the centre, and causes the rays of light to diverge. When moved before the eye, objects appear to move in the same direction. A concave lens makes an object appear smaller as the lens is moved away from the eye and larger as it is again brought close.

If a concave cyl. is moved in front of the eye in the direction of its axis, an object looked at does not change its position; but when moved in a direction at a right angle to its axis, the object appears to move in the same direction as when a concave sphere is used.

There is a diamond scratch on the cyl. near its edge; this is used to locate the cyl. axis by noting to which degree of the circle it points when the astigmatism has been corrected.

A circle viewed through a strong convex cyl. appears as an oval with its long diameter in the opposite direction to the axis of the cyl.

The long diameter of the oval will be in the same direction as the axis of the cyl. when the circle is viewed through a concave cyl.

Objects viewed through a prism are displayed towards its apex, and that portion of a straight line seen through a prism never coincides with the straight line.

NEUTRALIZATION OF LENSES

To find out the strength of a lens, one of the opposite character is held in apposition to it and the two lenses are moved in front of the eye as a distant object is observed. If all movement of the object stops, the lenses are equal: one has neutralized the other. Spherocylindric lenses are neutralized by the use of two different spheres, one for each meridian. The difference in the two spheres is the size of the cyl.

THE FITTING OF THE LENSES

The patient is seated twenty feet from the point where the test letters are placed (preferably Snellen's test-types). The room should be sufficiently light. The trial frames are adjusted, care being taken to properly adjust the bows and bridge, to see that the pupils centre the eye spaces, and that the eyelashes are at a proper distance from the lens.

The measurements of the frame are now taken and written on prescription blanks, which are supplied by the optical company with which you deal.

Fitting of glasses.

The pupillary distance, marked P. D., is first measured by noting the distance from the inner margin of the rim of the right rim at the nasal side of the eye space to the inner margin of the opposite rim at the temporal side of the opposite eye space; this will give the P. D. Attention is next given to the bridge,—its style, height, width at base, angle of crest, and the distance in or out from centre that the crest should be situated. The distance between and the length of the temples should be measured, and the style of bow wanted, whether riding bow, marked R. B., or straight. The composition and style of frame, whether full frame or rimless is desired, should be noted.

If eyeglasses are desired, the P. D. is taken, and style of guard, cork or shell, style of spring, handle, hole for cord, space at top of guards and space at bottom of guards are noted in prescription blank.

If double (bifocal) glasses—that is, for both distance and reading—are wanted, the style desired is checked on the prescription blank.

One eye is now covered with the blinder supplied in trial case and the other eye is tested. You begin by using a sphere of low denomination and add another sphere of the same denomination. If this betters the vision, the two can be taken out and one

introduced the strength of which will be equal to that of the two. Thus, you introduce a +0.25, and if another +0.25 held in front of the one already in frame betters the vision, the two are removed and a +0.50 introduced. Keep adding the +0.25 as long as the vision is bettered by so doing. In this way you will correct the amount of hyperopia present.

It is now necessary to determine whether astigmatism be present or not. This is done by the use of a card on which are lines arranged as the dial of a clock is numbered, three lines for each hour, the lines coming together in the centre appearing as spokes in a wheel. If some of these lines are dark and others a lighter color, the patient has astigmatism and the lines are to be made to look alike by the use of the cyl.

The correction or lessening of the amount of astigmatism will always give the patient better vision, and bearing this fact in mind will sooner enable the physician to select the proper glass.

It can usually be told about the strength of the cyl. necessary to correct the astigmatism by noting the amount of vision had by the patient after the sphere correction. If he can only read three or four lines from the top of the card, he will probably need a cyl. of 3 D. strength. This will usually be a +cyl. if the sphere that has been used is a +s. So

you take a cyl. of a strength that you deem necessary, place it in the frame, and turn it until the patient says he can see better. You can turn it almost to the proper axis by noting just the place where vision is best, and proving it by seeing if the vision becomes poor on both sides of this point and equally distant from it.

After you have located the axis, if the lines on the astigmatic card do not look alike, you use cylinders of different denominations until correction is made, always placing the cyl. in the frame so that the diamond scratch which marks the cyl. axis will point towards the degree at which the best vision is given. In this manner the amount of astigmatism can be rapidly determined.

If you are still unable to make the lines look alike after you have tried a variety of cylinders, it is possible that you have not got the proper cyl. axis. Select the cyl. that gives the best vision and move it both sides of the former point a few degrees, one at a time, asking the patient each time if the lines look alike.

When plus cylinders are used, the axis should be placed at 90 degrees and rotated both ways. The rule is, that the cyl. axis will be within 45 degrees of 90, but there are many exceptions.

When minus cylinders are used, the axis should

first be placed at zero and rotated 45 degrees each side to locate its axis, as this is also the rule.

If a minus sphere (marked — s.) be necessary to help the vision and a cyl. is also necessary, a — cyl. will also usually be necessary, but the opposite is possible. This also applies to the + s. and cyl. combination.

After the sphere-cylinder combination has corrected the vision for distance,—that is, 20 feet,—the near or reading vision is determined by adding the proper plus sphere. Old folks will usually require a + lens of from 3 to 5 diopters for reading purposes.

If the person be myopic, or near-sighted, minus sphere and cylinder will be necessary, and the correction of the vision must be thought out in the same manner as the method described for hyperopia where the plus spheres and cylinders are used.

If any physician will purchase a good test case and practise a short time, following the above rules, he will be able to give correct vision to 90 per cent. of all patients who come for optical work.

The measurements for bifocals are the same as for the spectacles or eyeglasses, except the size and shape of the segment, and this should never extend above the median line of the lens and seldom to it.

If glasses are to be worn constantly, they should be perpendicular or inclined about five degrees from the perpendicular to the front of the eyes, and if for near work the lenses should be tilted slightly downward.

All optical companies now sell cards on which is every variety of frames. The proper one is selected and ordered by number, instead of by measurement.

RETINOSCOPY

This is a method of estimating the refraction of an eye by reflecting light from a mirror and observing the movement which the retinal illumination makes when the mirror is rotated. In the young and feeble-minded this is a valuable and in all cases a perfectly accurate method.

The eye should be placed under the influence of a reliable cycloplegic, and when in this condition its refraction can be quickly estimated.

To familiarize oneself with this method it is necessary to purchase a schematic eye, which can be bought from any optical company, and carefully study it until the method is completely understood.

I would recommend that the plane mirror be used. This has a 2 mm. sight-hole in the centre.

The light should be clear, steady, and white, and be attached to a movable bracket. The chimney

should be provided with an iris diaphragm for regulating the amount of light.

When making this test, the eye should be under the influence of atropine one-half grain to the drachm of water. Homatropine can be used in people over thirty-five years of age. It has a more transient after-effect and is more desirable on that account, but in young persons it is not reliable.

The physician should wear glasses that give him correct vision while refracting by this method.

The room should be darkened and all sources of light excluded except the one used for the retinoscopy.

The light should be on the left side of the patient and about six inches above a horizontal line drawn from centre of eye, so that the rays of light cross the line of the physician's left eye and strike the retinoscope which he holds to right eye.

The physician can operate at any distance from six inches to six metres. Usually either one-third metre or one metre is the desirable distance.

By reflecting the light into the eye you will notice the light on the face, which is ordinary reflected light and is easily noticeable. This light always moves in the same direction that the mirror is tilted.

Now, by looking into the eye you will notice that

the retina is illuminated with a reflex that is more red, one of more density than the one on the face. This retinal illumination is surrounded by a shadow or dark area, with which it is in contact and which moves with the illumination as the mirror is tilted in different directions.

The retinal illumination should be considered with regard to several important points: 1st, direction of movement; 2d, form of illumination; 3d, the rate of movement as near the centre of patient's cornea as possible.

Now, in retinoscopy there is just one thing to do, which is to find the point of reversal,—that is, just the time when the retinal illumination ceases its movement.

This can be brought about by the operator starting close to patient, noticing the direction of the movement of the retinal illumination, and gradually moving away until the retinal illumination ceases. If he move a little greater distance away, he will notice that the retinal illumination will move in just the opposite direction that it did prior to the time when the movement stopped altogether. The stopping point is the point of reversal.

Or this can be studied by the use of spheres. If a normal eye be looked into at a distance of one metre, it will be noticed that the retinal illumination

will move in the same direction as the light on the face and in which the mirror is tilted. Now, if a +1.00 sphere be placed in the trial-frame in front of the patient's eye, all movement of the retinal illumination will stop. This is the point of reversal. If a stronger +sphere be used, the retinal illumination will move in the opposite direction to the light on the face and to which the mirror is tilted. This is with the plane mirror. The same result would have been noticed if the operator had been one-third of a metre from the patient and had used a +3 sphere.

The rate at which the retinal illumination moves will show a high or low refraction error. If it moves fast, the error is a low one, and if slow, a high error.

If the illumination is large and round, the error may be myopia or hyperopia or a normal eye.

In astigmatism a band of light presents itself as the form of illumination, especially if the astigmatic error be great. The amount of deviation from the rounded illumination shows the degree of astigmatism. A movement that is faster in one meridian than the other shows astigmatism, and the astigmatism is in the meridian of slow movement.

A good rule to always follow to find the point of reversal is the following. If the retinal illumina-

tion moves in the same direction as the light on the face, add a plus lens, and if in the opposite, use a minus lens, until the proper strength is found that causes a discontinuance of movement. The strength of the lens necessary to bring the point of reversal will be the one that the patient should wear, less +1 sph. if the distance at which the refraction was estimated has been one metre. Thus, if a +3.50 sph. has caused a cessation of the retinal movement, a +2.50 sph. should be prescribed.

In estimating the refraction of an astigmatic eye, both meridians should be neutralized separately with spheres, and their difference will be the amount of astigmatism. Thus, if a +1.50 sph. ⌓ +1.00 cyl. ax. .90 give perfect vision, the use of a +2.50 sph. will make all movement cease in the vertical meridian at one metre distant, and it will take a +3.50 to cause all movement to cease in the horizontal, and the difference in the two spheres used is +1.00 sph., the amount of astigmatism.

CASES

It may be a help to the beginning optician to read a description of several cases in which the technique of procedure is minutely explained, and for that reason I will give such a description of several cases.

Case I.—Mrs. C., age sixty, said she had worn glasses all of her life, but that those now worn by her did not seem to give the best of vision. I examined the ones that she had been wearing, and found that she had two pair of glasses, one for reading and the other for distance. Those for reading were a +3.25 sph. and those for distance a +.25 sph.

Her best vision with the right eye without the glass was at about twenty inches, which would show the far point removed and cause one to think of hyperopia. That of the left eye was at fifteen inches, but very indistinct, which would lead one to suspect some pronounced abnormality.

The trial frames were now adjusted. They were so placed that the eyelashes would be about one-eighth of an inch from the lens. The bridge was one-sixteenth of an inch from a line drawn between the two lenses in the trial frame, and the height of the bridge was one-eighth of an inch, while the pupillary distance, which is marked "P. D.," was two and one-half inches. The length of the riding bows was Reg., which is about five inches. With these adjustments the pupils centred the openings in the trial frames in which the lenses are placed. The patient was now ready for the estimation of the refraction.

The left eye was covered with the dark slide and

a +.50 sph. introduced into the frame over the right eye. Another +.50 sph. was held in front of this one, and found to better the vision. A +.25 was now placed in front of the two others, but did not better those already there. A −.25 was now held in front of the two, and was not as good. So a +1.00 was written in the prescription for distant vision.

Now a +4.00 gave the best vision at a distance of one-third metre, "fourteen inches."

A +1.00 sph. gave the spheric correction in the left eye, but the patient could scarcely read the large letters at a distance of twenty feet. While looking through the sphere, the far point seemed to be nearer than normal, suggesting the necessity of using a minus cylinder.

I selected a −1.00 cyl. and placed it in the frame and instructed the patient to look at the small letters on the card. I then rotated the cylinder until the diamond scratch near its rim was at axis 15. She could hardly see the large letters. At axis 90 the vision was just as poor, but at axis 45, which is almost midway between the two points of poorest vision on the circle, the distant vision was almost normal, and the lines on the "clock-dial" chart looked equally bright, showing that the astigmatism had been corrected.

Now, by adding a +3.00 sph. to the distance correction the reading lens was secured, so that the following formula was sent to the optical company:

Distant { Rt. E. +1.00 sph.
L. E. +1.00 sph. ⊂ — 1.00 cyl. ax. 45.

Reading { Rt. E. +4.00 sph.
L. E. +4.00 sph. ⊂ — 1.00 cyl. ax. 45.

Size of eye, 0.
Cemented bifocals.
Frame measurements:
P. D., 2½ inches.

Bridge { Height, ⅛ inch.
Angle of crest, 45°.
Crest in 1/16 inch.

Length of temples, Reg.
Style of temples, R. B.
Full frames, gold filled.

Case II.—This case is that of a man, age twenty-eight, who said that when he looked at distant objects with the right eye the vision would be very poor, while with the left eye distant objects were seen more distinctly than those which were nearer. This would suggest a myopic right eye and a hyperopic left.

The trial frame was adjusted in the same manner as described under Case I., attention being given to the distance of the eyelashes from the lens, the loca-

tion of the bridge, pupillary distance, and length of temples.

The left eye being covered, a —1.00 sph. was placed in front of the right eye, and found to better the vision. The addition of another —.50 gave still better vision, which could not be improved by the use of either a + or a — sph. of small denomination, showing that a —1.50 sph. was the correction.

Now, the lines on the clock-dial were not alike. So a —0.50 cyl. was placed in front of the eye, the sph. being also kept in place. The cyl. was rotated to axis 45 degrees, and at this point the vision was poorest, and at axis 135 the small letters could hardly be seen. The cyl. was now rotated midway between these two points to 180 degrees, and found to make the letters very plain. A —0.25 cyl. was now held in front of the other and at the same axis, and caused the lines on the clock-dial to appear alike. So that the sum of the two cylinders —0.75 would give that correction.

A +1.00 sph. gave that correction of the left eye. This was obtained by the use of the + and — spheres as described for the right eye. This did not give sufficient vision. So a +1.00 cyl. was selected and rotated until the diamond scratch pointed to 90 degrees; at this point the vision was best for the

letters, but the lines on the clock-dial were not equally bright. So a +0.50 cyl. was added to the other, and this gave almost normal vision and caused the lines to be similar in appearance.

So that the formula was similar to the following:

Rt. Eye, —1.50 sph. ⊖ — .75 cyl. ax. 180.
Left Eye, +1.00 sph. ⊖ + 1.50 cyl. ax. 90.

CASES THE REFRACTION OF WHICH WAS ESTIMATED BY THE USE OF THE RETINOSCOPE

Case I. Hyperopia.—This case is that of a girl, aged six, who was unable to see the difference between certain letters of the alphabet, which she had been trying to learn while attending school for several weeks. The teacher noticed ocular defects and recommended that the condition of the girl's eyes be corrected with glasses or proper treatment. I was consulted, and found it necessary to employ the retinoscope to estimate the refraction.

The ciliary muscle was paralyzed by the use of atropine sulph. one-half grain to the drachm of water. One drop was introduced into each eye at bedtime and the following morning by the parent, and two more such treatments by me at intervals of one-half hour when she arrived at the office at nine o'clock gave the desired result.

The patient was seated so that the lamp was six

inches to the left of the right eye and slightly above a horizontal line drawn from the eye. The room was darkened; the only light present was that which came through the two millimetre opening in the chimney made by turning the iris diaphragm until that diameter was reached.

At one metre distance the retinal illumination appeared as a band of light in the right eye and extended across the eye at axis 90 degrees.

A +1.75 sph. caused all movement to cease in the vertical meridian and a +6.25 stopped all movement in the horizontal. The difference between the two spheres used is +4.50, which is the amount of astigmatism. Then by deducting +1.00 sph. from the sphere which is necessary to give the eye parallel rays of light, or infinity vision, when the refraction has been estimated at a distance of one metre, the sphere to be prescribed would be a +0.75.

In the left eye the band of light extended across at axis 105 degrees. A +1.25 sph. stopped all movement in the vertical meridian and a +5.00 stopped all movement in the opposite, which in this case would be in the direction of axis 15. So that the cyl. would be the difference between the two spheres, and would be +3.75 cyl., and the spheric correction +0.25 sph. The formula prescribed was the following:

Rt. Eye, +0.75 sph. ⊂ +4.50 cyl. ax. 90.
Left Eye, +0.25 sph. ⊂ +3.75 cyl. ax. 105.

The patient wore a pair of London smoked "Ds" until the effects of the atropia wore off.

Case II. Myopia.—This case is that of a boy aged seven, whose vision was so poor that he could not study print for many moments without the effects of the strain becoming very manifest. He was brought to me for treatment, and, noticing the large amount of ametropia present, I determined to refract the case by the use of the retinoscope. I noticed that the pupils were very large, which would suggest myopia.

After getting the effects of the cycloplegic, the child was taken to the dark room and placed in the same position as that described in Case I.

The right eye was first refracted. It was found that at one metre the point of reversal was reached in the vertical meridian—that is, all movement stopped at this axis—without the use of a sphere, while a —4.00 sph. stopped all movement in the horizontal, so that the cyl. would be a —4.00, the difference of sphere number between the two meridians. The band of light was in the horizontal meridian, so the axis would be 180 degrees.

The left eye showed the band of light at axis 165. A +0.50 sph. stopped all movement in the 75th

meridian, while a —3.50 sph. did likewise in the 165th. So the following formula gave the desired result.

Right Eye, —1.00 sph. ⌒ — 5.00 cyl. ax. 1.80.
Left Eye, —0.50 sph. ⌒ — 4.50 cyl. ax. 1.65.

To the dark room correction a —1.00 sph. must be added in cases of myopia, while a +1.00 sph. must be deducted from hyperopic cases, if the refraction has been estimated at a distance of one metre.

HYPNOTISM

This condition is a state of mind or a mental attitude artificially induced, in which the powers of volition and action are altered, and during which it is possible to forcefully offer suggestions as to acts and thoughts not readily or willingly accepted at other times.

It is claimed that the hypnotic sleep is similar to that indulged in by certain animals during their hibernating periods.

The exact effect produced on the brain when one is in the hypnotic state is an inhibition of the cells of the cortex which are ancillary to the production of consciousness and the intellectual processes, while normal sleep is produced by cerebral anæmia and fatigue of the brain-cells.

No subjects while in the hypnotic state can be induced to commit crimes that they would not do while awake. It is admitted that those of a vicious or criminal bias might be influenced to commit follies under hypnotic suggestion. Normal individuals will resist evil suggestions while in this state.

Weakened mental faculties or latent powers are capable of being brought out and developed by the

hypnotist suggesting to the patient that he utilize those forces, but persons of diseased or deficient mental faculties, of feeble volition, or of vicious tendencies are less (if at all) amenable to relief through suggestion.

I will not take up space to give a history of hypnotism or of its originators or advocates, but will say that any person who cares to make a deep study of necessary rules will easily become proficient in the art of producing this condition in many individuals.

The hypnotic condition is brought about mainly by the concentration of the subject's attention and the suggestions of the operator. If the subject can be induced to focus his attention on any object for a period of time, his mind becomes a blank to a certain extent and in a condition to obey the suggestions of the operator. If the whole attention of the subject is directed to the belief that the induction of sleep will take place, that effect will gradually ensue. This result having been produced, the subject's will power and power of resistance weaken, and he becomes completely susceptible to the suggestions of the hypnotist.

He can now be made to take imaginary fluids or hear voices at the suggestion of the operator, and these impressions are as real to him as actual percep-

tion. His dreams are framed and guided by an external agency; his muscles are brought into activity and controlled by the same power. The ideas, acts, and sensations which can thus be insinuated, so to speak, into the brain of the hypnotized person, through the agency of speech or other external influence, are technically called suggestions.

THE INDUCTION OF THE HYPNOTIC STATE

There are many methods of inducing the hypnotic condition. I will now give a description of that which is usually employed by many men of international reputation, and no person who closely follows these lines will have much difficulty in inducing this state in at least ten per cent. of all persons upon whom he makes the test.

You seat the subject in an easy chair and place a very bright object, preferably a brightened coin, in the palm of his hand. You now, in a very earnest manner, inform him that it is absolutely necessary that his whole attention be directed to that object, that, if he allows his mind to harbor the one idea that drowsiness is to be the result of the concentration of his thoughts and vision you will be successful in inducing the hypnotic state in a few moments. This sort of language will cause him to take a serious view of the matter and become earnest in his efforts

to make himself susceptible to the suggestive ability of the operator.

Do not hurry your subject. It will seem more natural if you allow him to slowly get sleepy. Instruct your subject that he is to continue looking directly at the bright object, and on no account to permit his attention to wander to other matters. Emphasize these remarks by repeating them to him in this manner:

"Now, I want you to keep on looking at the coin. Look steadily at the coin. Do not turn your attention to anything but what I say to you. Your eyelids are getting heavy; now they are heavier and heavier; now you are going to sleep; your eyelids are closing, closing; your eyes are almost closed now." Drawl out the words in a low tone as if you were very sleepy yourself.

Then follow it up like this: "You cannot keep your eyes open; they are closing. You are asleep." After a moment's pause, say "sleep," speaking the word in a low but commanding tone of voice.

The eyes of your subject may quiver for a short time, but he will soon settle back, perhaps with a sigh, and exhibit every sign of profound repose. Let him rest thus for a minute or two; but, if he be a new subject, keep making suggestions like these: "You cannot awaken now; nothing will wake you

and nothing will hurt you. You may open your eyes, but you will stay fast asleep."

If you have succeeded in bringing your subject into the above described condition, he will be completely under your suggestive power.

Another method is to seat your patient and inform him that he should allow himself to become perfectly relaxed, both mentally and physically. Next tell him to look steadily at your right eye, at the same time pointing to it with the index-finger. Lower your hand to the side and look the subject directly and steadily in the eye until his pupil begins to dilate. This will require about ten seconds. Then repeat slowly the following formula:

"Look at one of my eyes; close your eyes gently, a little tighter; arch your eyebrows. Now, sir, you cannot open your eyes. Now look at one of my eyes again. When I count five you will find it a little difficult to speak your name." You proceed to count slowly. "Now you cannot speak," etc. This is to be spoken very slowly and impressively, and, if the subject be in a proper mood and able to sufficiently concentrate his attention, you will have little difficulty to bring about a state of hypnosis.

Only about ten per cent. of all persons can be hypnotized on the first attempt, and on repeated attempts five per cent. more.

The important points to which the operator should give strict attention in order to be successful in producing hypnosis are fatigue of attention, fixation of the eyes, monotonous or rhythmic sounds, sense stimulation, etc. It is necessary to supplement the mental factor present by these means.

Finally, summing up the hypnotic condition and the causes that produce it, we learn: First, that it is a condition of artificial sleep brought about by the concentrated attention of the subject's thought and vision to some one idea or object, together with the suggestions of the operator, and this state is characterized by the suspension of the will and consequent obedience to the suggestions of the operator. Second, that the subject is controlled entirely by these suggestions, and not, as many suppose, by the will of the operator acting directly on that of the subject. Third, that all changes made in the habits, body functions with regard to disease, etc., through hypnotism are made through post-hypnotic suggestion,—that is, those suggestions that have made sufficient impression on the subject that he will still experience their controlling influence after he has awakened. Fourth, that the subject is awakened by the suggestion that he will awake.

TELEPATHY

TELEPATHY is the sympathetic affection of one mind or person by another without direct communication by the senses; or, in other words, it is the science of mental communication. This positively can be done if two persons are sufficiently able to concentrate their thoughts and follow proper rules.

It is not only necessary for the one who transmits the thought to have a sufficient power of concentration, but equally important for the one receiving the message to be in a fit condition of receptiveness or sensitiveness, and for both to be in this condition it will be necessary to practise for some time. At first your efforts will be flat failures, but with constant practice you will get a fair percentage of successful results, and later on, when by repeated trials you have fully established a feeling of sympathy between yourself and your subject, you will have a long series of unbroken successes.

It is best for one person to give his whole attention to transmitting and the other to receiving, at first, for, after one has become proficient in the transmission of thought to another, he will then be

more easily able to put himself in a passive frame of mind at any time and receive with equal proficiency. The one who transmits is the positive; the one receiving is the negative.

Beginning practice should be according to the following rules.

You must practise concentration of thought. Sit in a chair for a half-hour at a time and picture to yourself the face of the one to whom you wish to transmit a thought. It is important that this be the face of some one that you love or in whom you are deeply interested, for first results will be better. Feature by feature should be pictured to your mind's eye. Do not knit your brows or excite yourself in any way. Simply call up in your memory your friend's face, then close your eyes and proceed to paint the face before you in the darkness.

At first you will get no results unless you have a vivid imagination. You may be able to see the eyes and part of the face, but it instantly fades away and the effort must again be made, and finally the whole face stands out as clearly before you as a living photograph. But you must continue practising every morning, when the mind is clearest, for a half-hour, and repeating again at night, until you can without effort call up a friend's face out of the darkness in all its completeness.

After you have become proficient in the art of visualizing, you take the next step, which is a study of thought transmission.

Begin by taking some simple sentence, as "I will see you to-morrow." Call up your friend's face and say to it mentally, once or twice, just as if you were speaking aloud, "I will see you to-morrow;" "you will come to see me." Keep your mental eye fixed on the face for several moments, and, as it fades away, you will see plainly written in its place the message you sent.

You will not see the answer to your message. That will not come for a long, long time. You are only practising the sending of messages, which is best for the first six months or a year. When you see in bold writing and in vivid lines the message you sent, you will know it has been delivered to the receiving party.

Both parties should practise visualizing for several months,—that is, call up the other's face,—and when this can be easily done, thought transmission can soon be accomplished.

SIGHT DIAGNOSIS

THERE are a great many specialists who advertise to make a diagnosis of disease on sight, and no questions asked. This method of locating disease, while not absolutely certain, is sufficiently accurate to determine almost the exact condition of the patient whose malady has had sufficiently pronounced effect to change his normal appearance to any extent.

There are several important points to which the doctor should give attention who wishes to familiarize himself with this method of diagnosis. They are the following.

One can guess the age of a person within a few years, and this is a point that should be noted. The temperament of the individual should also be considered.

The color and expression of the face, the carriage of the body, the condition of the tongue, eyes, and pulse, and if possible to know, the occupation of the patient are the principal points that are given attention by any one who makes this method of locating disease a specialty.

Those who advertise to diagnose disease by the color, texture, and other qualities of the hair (which

is sent to them through the mail) will make their diagnosis in the form of an enumeration of symptoms, some of which will be present in almost any case; and as nearly all people who patronize this sort of specialists are ignorant as to what constitutes a disease, and are willing to believe, because they have been told one symptom which is really present in their case, that the specialist has surely made a correct diagnosis, they proceed to take several months' treatment.

The patient is usually told that his stomach, liver, and kidneys are in a very unhealthy condition, and that he will be able to prove this to his own satisfaction by allowing his urine to stand for twenty-four hours, and he will notice a white or brick-dust deposit, which will be a sure sign of kidney and liver disease, and that a white, brown, or yellow coat or little red points on the tongue or pains over the side, shoulders, stomach, or bowels point to a serious state of the same organs.

While in conversation with a very successful advertising specialist, I questioned him with regard to his methods of locating disease from merely the appearance of the patient. His reply was, that, when a lady entered his office who, according to his judgment, was from thirty-five to forty years of age, and had the symptoms of having borne children

(which the breasts and her figure in general will show), if she be pale and anæmic and weakly in appearance, he will tell her that she has female trouble, that her menses come too often and are too profuse, and that the excessive loss of blood deprives her body of proper nourishment, making her nervous and irritable, that she has heart palpitations, faintness, etc., which are the symptoms of weakness brought on by the loss of blood. This way of judging a case will be certain in nine out of ten cases.

He said that, when he noticed a heavy white coat on the tongue of a person who seemed to be otherwise in the best of health, he at once pronounced it a case of hyperacidity, and told the person that sour eructations, heartburn, soreness and pain in the epigastric region at times, were his symptoms; but that alkalinity was the condition when the tongue presented a deep red appearance and the patient was without fever, in which condition the acids were indicated.

He said that his methods were conducted entirely along these lines, depending upon his ability to collect sufficient symptoms for a diagnosis from observation alone.

The following are tongue symptoms that are usually present in certain conditions.

An elongated, pointed tongue, red at tip and

edges, having red papillæ, usually shows an irritation of the stomach and bowels together with a depraved condition of the blood.

A tongue that has a heavy, yellowish-white fur coating at the base shows morbid accumulations in the stomach.

A tongue that is coated throughout its length with a yellowish fur and is full and moist shows an atonic condition of the small intestines.

A tongue presenting a slippery, slick, and variously colored appearance would bring the sympathetic nervous system to mind and lead one to believe that general nutrition was below par.

A deep-red tongue shows alkalinity.

In septic conditions the tongue has a dark, dirty fur.

A flabby, swollen, indented tongue, covered with a uniform yellow pasty fur, points to chronic catarrhal gastritis, usually present in heavy drinkers and smokers.

SYMPTOMS TO NOTE FOR SIGHT DIAGNOSIS

There are plenty of symptoms which point unfailingly to some disease,—as, *e.g.*, the lameness of the rheumatic patient, the notched teeth in hereditary syphilis, etc.,—and a careful study of the observation method will enable one to diagnosticate

pathological conditions on sight in a large percentage of cases.

Falling out of the hair is frequently present in kidney diseases, as are also eye abnormalities. Also a desire to support the lumbar region by pressure against some resisting substance.

The color of the eye and skin will point out liver and blood abnormalities.

The volume and character of a cough, together with the general appearance of the patient, will locate its source.

Throat troubles can be located by the strained condition of the muscles of the face when the patient swallows.

The water-hammer pulse and strongly-visible pulsation of superficial arteries point to aortic regurgitation.

In the chlorotic girl the pronounced anæmic condition makes questioning unnecessary.

The person who presents a yellow eye and skin, sad, melancholy expression of countenance, yellowish-brown coating on tongue, is sure to be nauseated and have a feeling of fulness over the right hypochondrium and have a pain over right shoulder-blade. He will be drowsy and lack ambition. His urine will be highly colored and all the symptoms of indigestion will be present.

It is in this manner that the diagnosis of any pathological condition is made if it has been done without asking questions, and not, as is thought by the gullible laity, by somnambulistic or clairvoyant power.

THE TREATMENT OF THE ALCOHOL HABIT

THERE are many institutions throughout the country the mission of which is to cure the alcohol habit. Besides the Keely cure there are many others, which are different in name only, but which claim to give only vegetable treatment, which, they assure you, will leave no deleterious after-effects.

The specific action obtained from the treatment prescribed by Keely does not come from chloride of gold. No such action was ever gotten from this being administered in any way or form. It may have some beneficial action as a tonic, but is no better for even that purpose than many other remedies having a tonic or alterative action.

The writer has treated a great many persons who were subjects of chronic alcoholism. A variety of patients has been encountered and all have been forced to abandon their habit, but gold as a remedy has not been thought of at any time.

In the treatment of alcoholism the individual patient will have to receive medication along a line that will best modify the symptoms that that case presents, and not by the use of a compound which,

it is claimed, acts as a specific, alone and unaided. Such a remedy is not in use and never has been thought out as yet.

There is a class of patients who drink freely of intoxicating beverages every day and continue about their business, showing no sign of intoxication. They imagine that they can discontinue its use at any time; but if they make the effort to do so unaided, they find that they are in the grasp of an enemy who has complete mastery.

There is another class who remain sober for months at a time, and then get on a spree that lasts until they are out of money and can get no more intoxicants, or until the stomach becomes so inflamed and irritable that drinking becomes impossible, and they straighten up for a time and then drink the same amount once more.

There is still another class that are degenerates. They are weak physically and mentally and will swallow alcohol in any form and at any time and place. The only music to which they care to listen is the gurgle made by the emptying of the beer or whiskey bottle. About the only method by which a permanent cure of this class of cases is possible is confinement in an inebriate asylum, where the intoxicants can be withdrawn and kept away from the patients. It is possible to compel them to discon-

tinue the use of alcoholics for a time, but in a few weeks the appetite returns and they are at it again with renewed vigor.

Then the first class of patients come for treatment. They usually do so of their own accord. They either notice that their health is suffering as a consequence of over-drinking and wish to discontinue the habit on that account, or the major portion of their earnings is being spent for intoxicants, which necessarily robs their families of many luxuries which they otherwise might enjoy, and from a sense of shame and love of family they seek relief from the terrible appetite.

The two latter classes of patients usually have to be brought to the place of treatment by relatives or friends, for they have no desire to discontinue the use of alcoholics.

THE REMEDIES USED TO CURE THE ALCOHOL APPETITE

Several classes of drugs are necessary to treat the different symptoms of the patient seeking relief from this condition. The emetics, tonics, stimulants, and sedatives are the principal ones in use.

To deprive a patient of the terrible appetite, it is necessary to get a psychical effect, and this is done with apomorphine, ipecac, tartar emetic, or some

other emetic. This is injected hypodermically, if the apomorphine is used, and when the patient yawns, which always happens about a minute before emesis is produced, he is given a large drink of his favorite beverage. The patient imagines that the alcohol comes in contact with the medicine and the vomiting is the result.

With many patients no other treatment will be necessary. The smell or sight of the intoxicant nauseates them at once. Injections are continued, but boiled water containing small doses of strychnine is used; later a patient craves for drink, he is then given the emetic as before.

One of the main symptoms with which we have to deal is the intense gnawing pain in the stomach, caused by the inflammation which is always present in all patients who have been on a debauch for any length of time. The drugs that have always given the writer the best results when this symptom is present are those contained in the following formula:

℞ Tr. nux vom.,
Tr. capsicum, āā ℥ss;
Fld. ex. hydrastis,
Fld. ex. lupulin, āā ℥i;
Water, q.s. ad ℥iv.—M.

S. Teaspoonful every two or three hours.

The above formula will usually quiet the irritable patient, but in some cases it will be necessary to use drachm doses of bromide of sodium, and oftentimes chloral hydrate can be added with benefit.

Some men claim to have cured many cases by the subcutaneous injection of nitrate of strychnine in increasing doses, beginning with the one one-hundredth of a grain four times a day. They have run the dose up until the patient could tolerate one-eighth of a grain without noticing any other symptom than a slight muscle jerk.

In my opinion the use of this remedy is uncalled for except as a tonic. The specific action of the drug as an antialcoholic has not been proved. The after-effects produced by the administration of large doses are sometimes markedly deleterious.

Atropine may also destroy the appetite for intoxicants in some patients, but the delirious condition produced when any amount of the drug is being used should contraindicate its employment, for this condition is already a pronounced symptom in most cases.

The following is a history of the treatment of a few cases:

Mr. G., age forty, had drunk from five to fifty glasses of beer each day for twenty-five years. This man attended the funeral of a relative who had died

of delirium tremens. It frightened him to such an extent that he resolved to abandon the drink habit and applied to me for treatment.

The man's stomach was in such an irritable condition that he vomited the first two or three drinks that he attempted to swallow each morning, until, by continued effort, the sensitiveness was overcome, and he was able to retain the forty or fifty beers with an occasional glass of whiskey sandwiched between.

I gave this man a bottle of the lupulin and hydrastis prescription given above, and also injected one-thirtieth of a grain of strychnine nitrate four times a day throughout the treatment. He came to the office for his medication, and at these times I either had him take a drink and added the apomorphine to the hypodermic treatment, or gave fifteen or twenty drops of the fluid extract of ipecac internally. It took nineteen days to compel the man to leave off drinking altogether, but it has now been over seven years and he has never touched liquor since that time. He is worth several thousands of dollars and has a happy wife and four children, who were far from being in that mood when the husband and father wasted his money and health for intoxicants.

Another patient treated by me had been a periodi-

cal drinker all of his life. At the time of treatment he was about forty-five years of age, unmarried, and had a fine education, but seemed to be possessed of an hereditary liking for alcoholics. Once in every two or three months his appetite would impel him to drink until he was in a state of delirium tremens, and when over this he would straighten up for a time.

This man's treatment was similar to that of the constant drinker mentioned above, with the exception that the bromides and chloral and the hydrobromate of hyoscine were used to control his nervousness and delirium. His treatment was given at his home and the intoxicants were medicated with ipecac.

This man did not drink for over two years, when, while handling some home-made wine, he was again seized with the terrible appetite, and a big drunk was the result. He was again given this treatment and is now sober, but the inborn weakness may, and possibly will, be the cause of future indulgences.

Another patient, a man thirty-five years of age, a periodical drinker, had twice taken the treatment at Dwight, Illinois, at an interval of a year. This man would continue to drink in spite of the emetics. At Dwight he was coaxed to abandon the drink, and was told that he was cured; but they could not make

him quit, on account of the intense inflammation of the stomach caused by the intoxicants.

In my treatment I allowed the man to drink constantly and gave the emetics as much as his condition would allow for a day or two, and then discontinued their use and gave only the tonic prescription and the strych. hypos. until his stomach was in fair condition. Then he was made to vomit again for several days. After three weeks of this sort of treatment, he voluntarily discontinued the use of alcoholics, and had no craving in that direction for over five years. About one year ago, as a result of some family difficulty, he went on a rousing spree. He refused to again take the treatment, and died while in a state of delirium tremens.

The writer has also treated a number of young men who had been intoxicated a few times and were induced to take the treatment by anxious parents or relations, who thought the boys had contracted a disease which, if taken in its incipiency, might end at once and forever. Almost all have remained perfectly cured. This class is easily remedied. A very small amount of will power would have given equal results. The psychical effect produced by the treatment is alone responsible for the complete cure of many cases.

One of the many much-advertised treatments of

alcoholism without the patient's knowledge is to simply give five drops of the fluid extract of hydrastis three times a day. The remedy is given in the patient's coffee. While this remedy is not a specific in all cases, it will deprive a class of people of the appetite for strong drink.

A remedy advertised to the medical profession contains hydrastis, valerian, capsicum, hyoscine, or atropine, strychnine nit., and compound tincture of cinchona. This, it is said, will cure many cases, but I think the patient will not be so apt to relapse if the emetics are used in connection with such remedies.

THE OPIUM HABIT

In persons addicted to this habit there is an irresistible craving for opium or morphine. It is generally acquired as a result of the long-continued administration of the drug to relieve some suffering caused by a painful and incurable disease or for insomnia.

The chief symptom is the craving for the drug. Others are irresolution, loss of self-control, moral obliquity, and untruthfulness. Epigastric pain and nausea are generally complained of about the time the next dose of opium is due. Whether this is feigned or actual is not easily determined. Mental depression, insomnia, anxiety, restlessness, and a sense of impending evil are usually present as symptoms and are always relieved by the drug.

The patients are divided into several types: those who use the drug for pain caused by some chronic disease or condition, those who have used it for a great many years and in whom every pathological change that the drug is capable of producing has been made. Those who have used it for a long time and no change has been made in their body functions, and the young person who has not taken the

drug long enough for any pathological conditions to result.

Usually the digestive and assimilative organs are completely paralyzed, the secretions of the liver, bowels, and stomach are modified or checked, and an emaciated, sleepy-looking individual is thereby produced.

In the treatment of an opium *habitué* the most important symptoms that must be met are the terrible appetite or craving for the drug and the mental and physical disturbances which follow its withdrawal; the impaired body functions must also be restored.

To successfully meet these demands will require the use of remedies similar to those employed in the treatment of alcoholism. Substitution will have to be practised. Tonics, stimulants, eliminants, sedatives, etc., are about the classes in vogue.

As preliminary treatment the system should be unloaded with such remedies as calomel, sodium phosphate, acetate and citrate of potassium, and in conjunction with this treatment sweat-baths should be given to vigorous patients.

METHODS OF WITHDRAWAL

There are two methods of withdrawing the drug' the immediate and the gradual. The former is prob-

ably the easier for the physician and the latter is the more desirable to the patient.

TREATMENT

The treatment of this condition should be conducted in an asylum or sanitarium or under the supervision of a nurse.

After the preliminary treatment the patient is given a hypodermic injection of one-thirtieth of a grain of strych. nit. four times a day and the following medicine every three hours. Or the tonic and sedative prescription given under the alcohol treatment will be equally efficient:

℞ Fld. ex. hydrastis,
Fld. ex. erythrox. coca,
Fld. ex. avena sativa,
Fld. ex. lupulin, āā ℥i;
Ex. hyoscyamus, ʒii;
Atropine, gr. $\frac{1}{10}$;
Water, q.s. ad ℥vi.—M.

The drug that is substituted for morphine in its gradual reduction is quinine. On account of similarity of taste and appearance, this furnishes an ideal one. Each day powders are made up which in size are similar to those used the preceding day, with the exception that the morphine allowance is gradually diminished until none is given, and then

the quinine is also given in smaller doses until that is also dropped. The amount to deduct each day from the patient's usual dose will depend on the case. Usually one-quarter can be at once taken away, and at the end of three days it can be reduced to one-half. Each succeeding three days can be taken in the reduction of one-quarter their former twenty-four-hour allowance.

If the sedatives in the prescription are not sufficient to take the place of the morphine, the bromides and chloral can be added. This will probably have to be done at times, especially at bedtime.

This is the ordinary method of all who are successful in treating the opium habit.

THE IMMEDIATE METHOD

In this method the action of the hydrobromate of hyoscine is desirable, as is also that of strychnine and other tonics. These drugs are given hypodermically and also by the stomach in the following manner.

Two solutions may be prepared, one for hypodermic and the other for internal use.

℞ Hyoscine hydrobromate, gr. i;
Rhus tox. (Lloyd's), min. x;
Tr. apis (Lloyd's), min. x;
Two per cent. solution of boracic acid, ℥ii.—M.
S. Use hypodermically.

The dose is from five to ten drops.

℞ Hyoscine hydrobromate, gr. $\frac{1}{8}$;
Nitroglycerin, gr. $\frac{1}{4}$;
Strych. nit., gr. i;
Fld. ex. avena sativa,
Fld. ex. lupulin, āā ℥i;
Water, q.s. ad ℥vi.—M.

S. Teaspoonful every two or three hours, or as the case demands.

The patient is prepared as for the treatment by the gradual method. He is then given five minims of the hypodermic solution, and in fifteen minutes this dose is repeated. He may require a third dose to put him to sleep, which can be given at the end of another fifteen minutes. This will put him to sleep for several hours, when he will awaken and show the physiological effects of the hyoscine, which will be of a delirious nature. These manifestations need not frighten you, for they are harmless symptoms produced by the denarcotizing effects of the hyoscine. If his sleep has lasted five or six hours, he should have another injection of five or ten minims, and when he awakes from the effects of this injection he does not want morphine. If this should be the case, he should be put on the remedy that is to be taken internally. If he still has a craving for the opiate, the treatment should be repeated.

The dilated pupil, fetid breath, dry tongue, free salivation, vomiting, and delirium need give you no alarm. His heart's action should be stimulated, if necessary, with nitroglycerin and strychnine, and, if there be much slowing of the respiration, it can be quickened with a hypodermic injection of one-quarter grain of morphine.

The internal treatment should be continued for several days, gradually reducing the amount until it is left off altogether.

The insomnia should be treated by hot and cold baths and a sparing use of sedatives and hypnotics.

Fluid extract of passiflora incarnata and avena sativa, a teaspoonful of each, are highly efficient as sedatives. They are probably the best ones to use in these cases.

Chloralamide is probably the best one of the synthetic compounds used as hypnotics. From ten to twenty grains at a dose should be given.

DR. MANN'S TREATMENT

In this treatment sodium bromide is used in drachm doses twice daily and increased twenty grains each day until three or four drachms are given as the daily dosage. The opiate is gradually reduced as the bromide is increased, and can be abandoned in about ten days; after which the bro-

mide is gradually reduced. Codeine is substituted for the morphine in the beginning, altogether or partially, as the case will permit. Warburg's tincture and potassium cit. or spt. ætheris nitro. are given as eliminants of the bromides. A five-minim dose of a four per cent. solution of cocaine is given to relieve any depression caused by the withdrawal of the opiate. Gelsemium, one drop of the tincture every hour, is used to control restlessness and motor excitement.

THE TOBACCO HABIT

One can treat victims of the alcohol habit and be reasonably sure that almost all will discontinue its use for one year at least, but with tobacco it is entirely different. The patient associating with those who use the weed is constantly tempted to again begin the habit. The work that has been given the chewing muscles while tobacco was used makes the non-employment a constant reminder for a long time. Many who do not relapse after being compelled to quit become gum-chewers on this account.

Many advertised cures are composed of nothing more than sedatives and tonics, and if the patient uses his will power in connection with such remedies he can discontinue the use of tobacco very easily. The following is the formula of one of these:

℞ Atropine, gr. ⅛;
Tr. nux. vom., ℥ss,
Fld. ex. humulus,
Fld. ex. hydrastis, āā ℥i;
Tr. cinchona comp., q.s. ad ℥vi.—M.

S. Teaspoonful every three hours.

The patient is instructed to gradually discontinue the use of tobacco and to moisten his tongue with the solution when he craves a chew or smoke.

This method of treatment is all right as far as it goes, but I am of the opinion that the emetics should be added. I always give each patient a remedy similar to the one given above, but also give him an ounce of the fluid extract of ipecac and tell him to take from five to fifteen drops every time he takes a chew or smoke. If he will follow directions, the taking of tobacco in any way or form will be an impossibility. Any person who really wishes to leave off the habit will find this the better method of treatment, for, if he has the courage to take the ipecac when he craves for a chew, he will not be bothered very long with the appetite.

Another method that will do good work in many cases is to give the patient a two-grain tablet of quinine with each chew. This he allows to dissolve while the tobacco is held in the mouth. A persistent use of this method will bring surprising results with many cases. The bitter taste of the quinine causes a disgust for the tobacco.

THE CIGARETTE HABIT

Good results can be gotten by the use of the eliminant baths and medicines, and the use of the tonics, sedatives, stimulants, and emetics, as prescribed for the morphine fiends and alcohol patients. All these habitués are treated practically in the same manner, the difference in treatment being merely a change in the strength of the remedies to suit the individual. If any one will follow the directions given above for the treatment of any class of these patients, he will get as good results as can be gotten in any of the institutions that make the cure of these conditions a specialty.

THE COCAINE HABIT

The cocaine habit should be treated in the same manner as the gradual method for the opiates, using codeine and, when necessary, morphine to antagonize the sensations and appetite immediately after the withdrawal of the drug or its diminished use. All antidotes and medicines used to antagonize the effects of the cocaine are then gradually withdrawn.

CANCERS AND TUMORS

I HAVE had the privilege of having several doctors explain to me their methods of removing external growths of a cancerous or simple tumorous nature, and am very favorably impressed with the medicinal treatment of these conditions and think that it is to be preferred to excision in some cases.

Many patients would die before they would allow themselves to be operated on for any condition, and it is due to the refusal of the general surgeon to use other methods than that of the knife to bring about a healthy condition which prompts the sufferer to grasp at the treatment offered by the quack, and which in many cases is entirely sufficient to bring about a complete cure. This unloads many dollars into the pockets of the advertiser or other person of equal ability who is at once willing to use local applications, hypodermic injections, or internal medication for the removal of these growths. These three methods are the usual ones resorted to by the advertising specialist or those practitioners of medicine who have adopted these methods in suitable cases.

MALIGNANT NEOPLASMS

It will be well to give a brief description of the different forms of cancerous growths before outlining treatment.

ENCEPHALOID FORM

Synonyms.—Soft cancer, rose cancer, cerebriform cancer, fungus hæmatodes.

Definition.—A malignant growth containing a large quantity of epithelial cells and considerable scirrhous and some fibrous tissue.

Growth and Character.—It may attack any portion of the body and occur at any age, and is in reality almost the only form of malignant growth that occurs in childhood.

Location, etc.—Its place of growth is in the uterus, lymphatic glands, eye, testicles, ovaries, bones, breast. It sometimes begins as a number of nodules appearing simultaneously or as a single nodule.

It is extensively supplied with blood-vessels, grows with great rapidity, is soft and fluctuating, and on that account is much modified in shape by the pressure of surrounding tissues. It is liable to extend through muscular and other interspaces, sometimes absolutely surrounding important organs.

Ulceration takes place generally inside of one

year. This is of a foul character. The spread through the system is now rapid, through the lymphatics, and the whole system becomes affected. The patient may die through the destruction of some important vital organ or from inanition.

Diagnosis.—Rapid growth is one of the principal diagnostic features. The neoplasm is very soft and elastic and has a lobulated appearance. Under the microscope the appearances are similar to those of the scirrhous cancer.

Pain.—After ulceration takes place, there is dull and heavy pain. This is not pronounced as an early symptom.

Prognosis.—This is very grave. The termination is usually a fatal one, and occurs in from one to two years, unless the growth has been completely removed by an early extirpation.

EPITHELIOMA

Synonyms.—Epithelial cancer; rodent ulcer; carcinoma epitheliale.

Varieties.—There are three varieties recognized, —the superficial, deep, and papillary.

Superficial Variety.—This form makes its appearance as one or more grouped yellowish or reddish papules or as flat infiltrations, warty outgrowths, or degenerative seborrhœic patches. These show a ten-

dency to become excoriated and covered with brownish or red crusts. In the course of several months or years the deposit increases or new lesions appear, which undergo degeneration, with the formation of superficial ulcers. The ulcer is usually roundish with sharply defined, flat or raised, indurated, rounded, pearly edges. The base is hard, uneven, reddish, easily disposed to bleed, and secretes a scanty yellowish fluid. The general health is unimpaired. The pain is slight and there is no involvement of the lymphatic system.

Deep-seated Variety.—This form develops from the superficial variety or from a nodule having its seat in the corium and subcutaneous tissue. The nodule varies in size from that of a pea to a walnut, and is firm, indurated, rounded or flat, shining, and of a reddish or purplish color. Ulceration takes place after a lapse of some months, after which pain is more pronounced. The ulcer is deep, rounded or irregular in shape, with an uneven, reddened, easily bleeding base and hard, everted, purplish edges. An areola of redness and infiltration indicates the spreading stage of the condition. At this stage the lymphatics become involved. The pain is severe and of a lancinating character, and the patient slowly succumbs through hemorrhages or marasmus and exhaustion.

Papillary Form.—This may develop from an ordinary wart or from the superficial or deep variety. It appears as a small verrucous elevation or as a larger, coin-sized, lobulated, spongy, papillary growth. The surface may be dry and covered with horny yellow scales, or moist and covered with uneven, exuberant granulations, secreting a translucent or sanguineous fluid. Disintegration occurs, with the production first of fissures and later of ulcers. The course is progressive and malignant.

Epithelioma involves with predilection the face, particularly the lower lips, eyelids, and nose. The penis, labia, and other parts of the body are frequently affected.

Its etiology is obscure. It occurs more frequently in men than women and generally after middle life.

Pathology.—There is a downgrowth into the corium of the interpapillary projections of the rete mucosum, with a proliferation of the rete cells and their isolation in the corium in the form of nests. The occurrence of "pearly bodies" and certain secondary inflammatory changes.

Diagnosis.—Warts, ulcerating syphiloderm, and lupus vulgaris are commonly mistaken for epithelioma. It can usually be distinguished by the age of the patient, the occurrence of ulceration, the history, general appearance, and the course it has taken.

Prognosis.—The superficial form that results from seborrhœic degeneration may be cured by early destruction of the tumor. In the other forms the prognosis is not so favorable.

SARCOMA

A connective-tissue tumor in which the cells so predominate over the intercellular substance, in number and size, that the latter becomes a secondary element. It may also be described as a tumor made up of embryonic connective tissue.

Sarcomas are malignant tumors, the small-celled forms and those of soft consistency excelling in this respect. They appear usually at an earlier age than does carcinoma.

The problem of their causation has not been solved. In many cases it is possible to trace it to some injury. It is probable that trauma acts only as a predisposing cause.

The naked-eye appearance of the sarcoma is, as the etymology of the word indicates, flesh like.

Microscopically, the picture varies with the variety of the tumor, whether it is a round-cell, a spindle-cell, or a giant-cell sarcoma, or one of the other derivative forms. Sarcomas are well supplied with blood, which, however, is not contained in true vessels, but in spaces lined by endothelium. They are

often combined with other new growths, especially with the so-called mixed tumors and with congenital neoplasms.

The most frequent seats of sarcoma are the connective tissue of the skin, periosteum, eye, intermuscular septa, tendons, and subserous connective tissue.

The prognosis is very bad,—in fact, it is never favorable unless early and complete extirpation be resorted to.

GELATINIFORM CANCER

Structurally this form of cancer is not unlike that of encephaloma, but it also contains a clear colloid substance.

It is found most frequently in the stomach, omentum, rectum, and bones. It does not usually involve the lymphatic glands, as the other forms do.

It rarely occurs in childhood.

Diagnosis is difficult until after its removal, on account of its close resemblance to encephaloma.

Prognosis is grave unless there be early and complete removal.

MELANOMA

Synonym.—Black cancer.

This is a malignant growth resembling in many respects the encephaloma, with the exception that there is a large amount of black pigment.

Its principal place of growth is in the skin. The color may vary from an iron-gray to black.

It may have its origin from a pigmentary mole.

Diagnosis.—Same as encephaloma, with the exception of the pigment.

Prognosis.—Terminates in death unless removed early.

SCIRRHUS

Synonym.—Atrophic cancer.

It is a malignant growth composed of embryonic epithelial and fibrous tissue.

The breast is the usual seat of this form of cancer, but the uterus, liver, and other organs may also be the location of the growth. It contracts adhesions to surrounding parts, as is best shown by the retraction of the nipple in scirrhus of the breast. As the disease progresses the skin becomes infiltrated, is hard, livid, and traversed by numerous blood-vessels. The glands become enlarged by taking on the disease, and finally the whole system becomes affected and the patient dies from inanition or some complication.

Diagnosis.—Scirrhus very seldom occurs before the fortieth year. It is the most common of all breast tumors at that age. It soon becomes attached to the integument and surrounding tissue. It does not attain a very large size. There is a retraction

Melanoma.

of the nipple in breast cases. There are sharp, lancinating pains. The neighboring glands are enlarged. There is a marked general cachexia. After a time ulceration takes place.

Prognosis.—Always bad unless the growth is completely removed early by proper treatment.

REMOVAL OF TUMORS

SURGICAL TREATMENT

In the removal of benign tumors it is possibly best to excise them with the knife. Smaller scars are the result, and when done under anæsthesia the patient escapes the suffering which is unavoidable with the use of caustics.

Extirpation should be very thorough, careful dissection of all abnormal tissue being done.

With one of the Schleich formulas quite large tumors may be removed with absolutely no pain.

The cocaine solution is injected at the edges of the tumor, a few drops being used every half inch throughout the entire circumference of the growth. It is unnecessary to inject into the body of the tumor unless it is very large.

The caustic treatment is very satisfactory and is to be much preferred to excision in selected cases. Many harmless tumors can be removed with slight cauterization.

One or two applications of nitric acid will cause most benign tumors to disappear.

THE INTERNAL TREATMENT

Many specialists use the alteratives, such as chelidonium majus, iodide of arsenic or sodium, conium, phytolacca decandra, etc.; but in most cases all the benefit derived from such treatment is the psychic effect, or possibly the general condition of the patient is modified by their tonic action. Where so much per week is charged by the quack, the patient is given preliminary internal treatment for a number of weeks or months for the purpose of securing a large number of fees, and when he thinks he is in possession of about all of the patient's bank account that he will give, then the proper caustic is applied and the growth removed.

It is thought that small doses of arsenic modify cancerous growths to some degree.

EXTERNAL REMEDIES

The remedies used for the removal of external cancerous or benign growths are very numerous. The one standing at the head is arsenic, and this drug is in almost all the cancer-pastes that are compounded.

Chloride of zinc is next, and is very effective, but exceedingly painful.

Salicylic acid is a very useful drug used to remove overgrowths of the skin. This drug is the active principle of almost all of the corn-cures advertised for sale.

Nitric acid is a very useful caustic for small tumors. Applications must be made every few days until sloughing takes place, then healing the raw surface with remedies usually employed for any similar condition.

Sulphuric, pyrogalic, and lactic acids are sometimes used, but they are not usually preferred.

Nitrate of silver is a superficial escharotic, and is of little use when a tumor of any size is to be removed.

ARSENIC

This is a very valuable remedy to remove all kinds of superficial and deep growths of either benign or malignant character. It has the advantage of causing less pain than do the other escharotics and caustics, and is superior because its action is only on the diseased cells, not attacking to any degree the healthy parts, and at the same time removing every particle of the diseased area. One need have no fear to use this drug over large surfaces, for absorption does not take place, at least not

to any degree. Thousands of malignant growths have been removed by one man with whom the writer is well acquainted, and he reported that he has not seen one case of arsenical poisoning from its local use.

Many formulas and drugs are used for the cauterization of cancers, etc., but this is a drug that answers almost every purpose, making it unnecessary for the physician to have numerous pastes or compounds on hand.

I have myself removed large growths and numerous small ones with arsenic pastes, and it has proved exceedingly gratifying in every instance. The scar is small in comparison to the size of the growth removed, and healing is rapid in most instances.

A great many of the laity throughout the world have pet formulas for the removal of cancers and tumors, but if they are analyzed the active principle will be found to be one of the drugs mentioned above.

One man of the writer's acquaintance would collect a couple of handfuls of sheep-sorrel and two "thousand-legged worms," as they are usually called. He would then pound them together and press out the resulting liquid. This he would mix with equal parts of arsenic and acacia, and certainly had an admirable cancer-paste.

Cocaine is now added to almost all the cancer-pastes to lessen the pain, and is a valuable addition.

℞ Arsenious acid, 3i;
Powdered acacia, 3ss;
Cocaine mur., gr. x;
Water, sufficient to mix to consistency of cream.

This will be found a valuable formula. It should always be freshly prepared.

The older formulæ were similar to the above, with the exception of the cocaine.

How to Apply.—A hole should be cut in a piece of adhesive plaster or isinglass of the size of the tumor to be removed. The piece in which the hole has been cut should be stuck fast to the healthy tissue surrounding the growth. This will protect the parts that you do not wish cauterized. The surface of the tumor or parts to be removed should first be made as raw as possible by the use of salicylic acid in a solution of collodion, or the rough exterior curetted under local anæsthesia, after which the paste is applied on a piece of rubber or isinglass of the size of the tumor. This is allowed to remain for twenty-four or forty-eight hours, after which the parts are poulticed with linseed meal or slippery-elm powder until the tumor can be removed as a whole, after which the wound should be treated in the same way as any open wound.

Arsenic blackens and cauterizes the tissue, and there is considerable pain, which can be modified to any degree by the use of morphia. This may be given in doses to suit the individual.

It is sometimes a good idea to allow the paste to remain even longer than the twenty-four or forty-eight hours, to insure a complete removal of the mass.

The following formulæ are the ones in common use by all claiming and advertising to cure cancers and tumors without the knife. Under this heading will be given just those formulæ that contain arsenic as a part or all of the active principle. Almost all of them were gotten from some man making a specialty of removing tumors, and the writer knows that these were their best remedies, for I have seen them used by them a large number of times.

Dr. Huxley's Cancer-Paste.

℞ Arsenious acid,
Morph. sulphate, āā ½ gr.;
Calomel, 4 gr.;
Pulv. acacia, 24 gr.

Moxley's Tumor-Ointment.

℞ Acid. arseniosi, ½ gr.;
Spts. vini rect., 37 gr.;
Aquæ dest., 37 gr.

Hebra's Salve.

℞ Rochelle salts,
Sulphur,
Sulph. zinc,
Arsenious acid, āā ½ oz.

Dr. Landorf's Paste.

℞ Hydrarg. chlor. cor., ½ gr.;
Acid. arseniosi, 1 gr.;
Hydrarg. sulphuret. rub., 5 gr.;
Ammonii mur., 5 gr.;
Farini trit.,
Amyli,
Zinc. chlorid. cryst., āā 60 gr.

Jackson's Paste.

℞ Arsenious acid,
Powdered sanguinaria, of each dr. i;
Zinc chloride, dr. ½.
Flour and water, sufficient to make a paste.

℞ Arsenious acid,
Vegetable charcoal,
Powd. serpentaria, āā ½ oz.

Wheeler's Specific.

℞ Arsenious acid,
Powd. sulphur,
Peucedanum off.,
Ranunculus sylvestris, āā ½ dr.

Dr. David's Cancer Remedy.

℞ Arsenious acid,
Morphine sulphate, āā ½ dr.;
Mercurous chloride, mild, ½ oz.;
Powd. acacia, 6 dr.;
Water, enough to make a paste.

Dr. Haly's Paste.

℞ Arsenious acid, ½ dr.;
Mercuric sulphide, red, 1½ dr.;
Vaseline, 1½ oz.

Dr. Henley's Paste.

℞ Acid. arseniosi, ½ gr.;
Cocain. hydro., 2½ gr.;
Aquæ dest., 350 gr.

Dr. James's Cancer Remedy.

℞ Acid. arseniosi,
Hydrarg. sulphuret. rub., āā ½ gr.;
Ungt. aq. rosæ, 20 gr.

Dr. Gould's Paste.

A Dr. Gould told the writer that he had removed hundreds of cancers from people with the formula given below. He had great faith in the remedy and would not use an arsenic paste in preference. The pain is excessive, but can be controlled by opiates. Usually one day (twenty-four hours) is a sufficient time to leave the plaster, after which it is necessary

to poultice until the slough separates. The plaster may have to be applied the second time to cause this to take place.

The doctor had quite a reputation as a cancer specialist, and I believe, as he stated, that this was his main external remedy.

In conjunction with this treatment he usually gave small doses of iodide of arsenic for a long time.

℞ Zinci chloridi, 2 dr.;
Auri chloridi, 2 dr.;
Antimonii chloridi, 2 dr.;
Brominii chloridi, 2 dr.;
Farinæ et aquæ, q.s. to form a thick paste.

The following formula was given me by a doctor friend who has used it extensively in his practice. He claims that there is but little pain,—so little, in fact, that he calls it a painless cancer remedy.

℞ Chromic acid, oz. ½;
Balsam fir, oz. i½;
White wax, oz. i.

Heat the balsam and wax until thoroughly mixed, then slowly add the acid while cooling.

Almost all of the following formulæ contain chloride of zinc as the active principle. This is a very efficient and safe escharotic.

℞ Zinc chloride, 1 part;
Wheat flour, 3 parts:
Water, enough to make a paste.

Apply for one or two days, and afterwards poultice until eschar separates. Repeat if necessary.

℞ Zinc chloride, gr. xxx;
Pulv. sanguinaria root, gr. xxx;
Wheat flour and water sufficient for a paste.

The above is a very old cancer-paste and is sufficiently active to remove any accessible growth.

The following formula I purchased from an old lady who had quite a reputation as a cancer specialist. She was very reluctant about giving up her long-cherished secret, but, as I was not doing business in her vicinity, she finally wrote out the different ingredients.

℞ Chloride of zinc,
Powdered bloodroot,
Charcoal, pulverized, āā ʒi;
Water, sufficient to make a paste.

Another formula I purchased from a farmer, who, the neighbors said, could remove the most malignant tumors and cancers. The following are the ingredients:

℞ Zinc chloride, gr. 5;
Tannic acid, gr. 2;
Alum, gr. 5;
Persulphate of iron, gr. 2;
Glycerin, sufficient to make a paste.

Lasser's Paste.

℞ Salicylic acid, 5 gr.;
Powdered starch, 1 dr.;
Zinc oxide, 1 dr.;
Lard, 2 dr.

This has been used by the writer with success in a number of cases where the growths were small.

Dr. Hoffman's Paste.

℞ Zinc chloride,
Pulv. sanguinaria,
Powd. opium, āā 3i;
Glycerin, q.s. to make a paste.

The opium in this paste seems to modify the pain to some extent, but remedies for pain are best given internally. Almost all cancer-pastes will require some quarter-grain or even half-grain doses of morphine to be administered every few hours during the time of application of the paste.

It is claimed that arsenic in small doses diminishes pain and checks vomiting in some cases of cancer of the stomach, also that it retards the growth

of epithelioma and scirrhus of the stomach, and also that it will favorably modify cancer of the uterus.

Some claim that mercuric chloride in small doses long continued will retard the growth of gastric cancer.

The following has removed epithelioma a number of times, to the writer's knowledge.

℞ Resorcin,
Petrolatum, āā ʒi.—M.

Make an ointment. Apply twice a day after washing with potassium permanganate.

Zinc sulphate dusted on dry is a very good caustic.

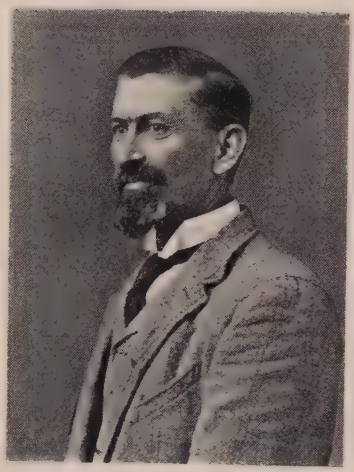
Calcium carbonate, as calcined oyster-shell, is very efficient in arresting the growth of cancerous tumors and in alleviating pain.

There are many other formulæ in the possession of the writer, but none better than those already given. Their insertion here would be mere repetition, as far as the active principles are concerned. Success can be met with by any one capable of following the foregoing directions who wishes to employ the caustic method of removing tumors and cancers.

THE NOWARD CANCER CURE

The following is a cancer and tumor treatment that has been given in the vicinity of Toledo, Ohio,

Sarcoma removed by the Noward cancer cure.



Same patient after treatment.

Large encephaloma removed with paste.

Patient after treatment with paste.

for four generations by the Noward family. The patients who have been treated have been told that the formulas which make up the treatment had been secured by the aged Mr. Noward from a Canadian Indian medicine-man. This treatment has been much sought after by many afflicted people, including numerous ones residing at great distances from the home of the Nowards. The family is a German one, and when Mr. N. got the prescription he had it printed in his mother tongue. This has been handed down from one generation to another.

Mrs. Noward allowed me to take the recipe, which has been translated and will be given here as I have translated it.

Cure for Cancer.

Take three and one-half ounces of plantain, both leaves and roots, which have been dried in the shade, and three quarts of water. Boil together until the quantity is reduced to one quart.

Take internally one gill three times a day, and to each dose add as much powdered saltpetre as can be placed on a sixpence. This is about five grains.

This prescription must be taken for a week before beginning treatment with the salve, and continued long after a cure has been effected.

The Salve.—In under old logs or barks you will be able to find what are called the slow-moving,

round, thousand-legged worms. There are two varieties of the many-legged creatures. The other is flat in shape and very rapid in action, running away at once when uncovered. These are not to be used. The round worm when uncovered simply curls up, and remains in that position.

These should be collected and placed on a pewter plate, and this elevated high in the open air where the sun can shine directly on them. After they have become thoroughly dried, they should be finely powdered and this powder added to twice its bulk of powdered white arsenic. This mixture should be thoroughly blended with sufficient unsalted lard to make a salve.

Method of Applying.—Cut a piece of linen the size of the cancer or tumor to be removed, and spread with the salve. Now scrape the cancer until it is slightly raw and cover with the plaster. Allow this to remain for twelve hours. Remove and apply a fresh one for the same length of time. Make three such applications and at the end of the third allotted time the cancer will begin to come out.

Now take poke-berry roots, wash and crush them, and wash the wound twice a day with the juice.

Now take green plantain, the leaves and roots, crush and strain through a cloth until one quart of juice has been obtained. Add to this one pound of

absolutely fresh unsalted butter, the mixture being placed in an earthen dish and cooked until a salve is formed.

After washing with the juice of the poke-berry roots, apply this salve to the wound twice each day until healed.

If swelling should be caused by the cauterizing plaster, its use should be continued just the same for the thirty-six hours.

I will say that I have used this treatment in a number of cases, and it seems to have a very good effect, and in many cases appears to have a more thorough action and causes less pain than other arsenic salves.

Mrs. Noward has had from ten to twenty cases under treatment at the same time, and reports that many times there would be but one or two patients out of that number who complained audibly while the arsenic and worm plaster was in action.

The plantain and butter salve seems to have a slight astringent action.

Internally the plantain and saltpetre (potassium nitrate) tea acts as a diuretic, mild laxative, and tonic.

The juice of the poke-root depends upon its tannin for its virtue in these cases, acting as an astringent. If this after-treatment is used, an antiseptic should be added.

THE SYMPTOMATIC TREATMENT OF SKIN DISEASES

Every newspaper contains advertisements offering to cure any abnormal condition of the skin, from a comedo to the most malignant tumor, showing that the people are putting thousands of dollars into the hands of the men and women who offer to so easily cure diseases of the skin or transform an ugly face into a beautiful one by several applications.

It is not the purpose of the writer of this book to take up too much space by ridiculing the advertising specialist, but to try, in as able a manner as possible, to show up his methods to the legitimate practitioner of medicine, and at the same time to add such treatment or methods, taken from that of the legitimate specialist, and try to make this work a valuable one for rapid and accurate reference.

Hundreds of skin diseases and conditions could easily be remedied by any doctor if he would only pay attention to a few fundamental principles concerning their symptoms and treatment.

In my experience I have seen many diseases of the skin improve and even get entirely well in the hands of a man who knew nothing of skin diseases

as far as diagnosis was concerned. His success depended upon his ability to treat symptomatically many conditions by both internal and external treatment.

VARIETIES

There are three classes of skin diseases:

1. Those which have a tendency to run their own course to final termination without treatment, and which are often made worse by almost any application.

2. Those which do not tend to run a favorable course, but which become chronic, extend, and reappear after a time, yet may be cured by proper treatment.

3. Those which always terminate fatally or last during the life of the patient, and are not curable, but may usually be relieved by treatment.

TREATMENT

In cases of the first class our attention should be directed towards promoting the comfort of the patient, and by wise counsel and good judgment preventing the use of harmful remedies.

In the other classes both external and internal treatment should be judiciously used.

Many skin diseases require constitutional treat-

ment as well as local, and a careful consideration of the patient's general condition should be undertaken; for we all realize that many skin lesions are merely external manifestations of some constitutional disorder or are due to an organic or functional derangement of some internal organ, and the proper treatment of these conditions results in a cure of the skin affection.

In treating a case of skin disease the general constitutional conditions of the patient should first be considered.

If the patient is weak and anæmic, thin and debilitated, no matter what the nature of the skin lesion may be, a wholesome, plain, generous diet, with plenty of fresh air, a good bitter tonic, and cod-liver oil will improve the condition of the skin and perhaps effect a cure. Cod-liver oil is a remedy of great value in these conditions, so much so that many specialists claim that it can be given with benefit in almost every case. If, on the contrary, the patient is full-blooded and plethoric, we should prescribe a restricted diet of fruit, green vegetables, toast and milk, with no stimulants, not even tea or coffee, allowed.

A liberal amount of alkaline mineral waters, sufficient to keep the bowels and kidneys active, will usually be followed by an improved condition of the

diseased skin, and often without the aid of external treatment.

OTHER DISEASES WHICH ARE FACTORS IN THE CAUSATION OF SKIN DISEASES

Syphilis is the disease that is accountable for one-tenth of all skin affections. Its constitutional symptoms, which are usually well marked, together with the history, which can sometimes be elicited from the patient, will enable the doctor at once to give benefit by the use of mercury, either alone or in combination with the iodides and a tonic.

Rheumatism or gout is many times a cause of skin diseases, and can be benefited or cured by vegetable diet, together with administration of the alkalies and colchicum.

The digestion and urinary systems are many times responsible for skin eruptions, and proper attention to these organs will assist in bringing about a cure.

If the skin lesion is of an inflammatory nature and acute, having lasted but a few days and, being accompanied by general malaise, loss of appetite, and some fever, a low diet, a saline aperient, and alkaline diuretics are indicated and will benefit the case, no matter from what source springs the cause. On the contrary, if the disease is chronic, has lasted a long time, the skin being thick and scaly, without

much inflammation, with general loss of health, a generous, non-stimulating diet is indicated, together with tonics, arsenic, cod-liver oil, etc.

ARSENIC AS A REMEDY

Arsenic is a remedy that has been more extensively used than any other in the treatment of diseases of the skin, and often with much deleterious action and useless waste of time.

Where bullæ exist arsenic is strongly indicated, especially if the disease be subacute or chronic. Chronic papulo-squamous diseases are benefited by the same drug. Diseases having a malarial origin are benefited, but probably through the tonic action of the drug. Anæmic and debilitated cases are almost always benefited through the tonic action of the drug.

When indicated, arsenic should be given in large doses, beginning with the small and gradually increasing to tolerant doses, which should be given for a few days, when the course should be repeated, beginning with small ones.

External treatment of skin diseases furnishes no general specifics, and, as a consequence, symptomatic treatment is absolutely necessary to bring about the best results. For this reason, we are compelled to divide our remedies into groups, which, according to

their action, are classed as specific, antiseptic, drying, antipruritic, antiparasitic, protective, astringent, stimulating, soothing, hygroscopic, etc.

To be constantly successful one must understand some of the methods of applying medicines to the skin, and know what properties the medicaments or their bases must possess in order to get the best results. The drug must either be so minutely divided or be in such a soluble form that it will pass through the outer layers of the skin.

EXTERNAL TREATMENT OF SKIN DISEASES

External medicines are in the form of soaps, caustics, ointments, powders, lotions, baths, etc. Inunction is used more than any other method and is the best external treatment generally. Lanolin, lard, and vaseline are the bases of the ointments usually employed.

Benzoated lard keeps well and is a good base for an ointment. It is readily absorbed, is of about the right consistency, and is cheap.

Lanolin is absorbed more readily than other bases, but in other respects is inferior to lard.

Vaseline is itself an antiparasitic, and should be used as the base of parasiticide ointments, except when these contain mercury, with which it does not readily mix.

Flexible collodion, traumaticin, and gutta percha liquor are used as carriers for drugs. In chronic thickening of the skin these are useful, as pressure is indicated. This they exert to some extent, but they cannot be used in acute diseases where inflammation and exudation exist.

Lotions afford the best form of treatment for most acute conditions. All medicines can be dispensed in this form, and saturated cloths furnish a convenient method of application.

Proper drainage of secretions should be instituted in all cases.

Powders are used by the laity more than they are by the dermatologist. They should be devoid of gritty particles.

When powders are used, caking should be prevented, so as to avoid retention of secretions. When drying or astringent properties are necessary, powders are indicated. Boracic acid, bismuth subnit., compound stearate of zinc, magnesia, buckwheat flour, calamine, lycopodium, fuller's earth, etc., are the ones usually brought into service.

Hot-water baths are of benefit to hasten absorption of inflammatory thickening of the skin, but are useless in most other conditions.

Bran baths are very serviceable in cases requiring a soothing application and where the subjective sen-

sations are pricking, burning, and itching. One pound of bran added to fifteen gallons of tepid water is about the right amount. It can be confined to a cloth sack and soaked in the water or mixed directly.

For scaly diseases of the skin alkaline baths are used with much benefit. The water should be made demulcent by the addition of bran or starch, then half a pound of washing soda is added.

A mixture of precipitated sulphur, two ounces, and one ounce of hyposulphite of sodium to fifteen gallons of water is of much service in parasitic skin affections or where the skin is oily or greasy.

Arsenic, chloride of zinc, nitric acid, etc., are used to destroy external growths. The first two, when employed, should be mixed with pulverized acacia or starch in equal parts, spread on a cloth, applied to the growth, and allowed to remain twelve hours, when it should be poulticed until sloughing takes place, and then treated as an ordinary wound.

Soaps are employed in selected cases to soften and remove scaly conditions, and act also as stimulants.

GENERAL TREATMENT

The first thing to do in a case of skin disease is to relieve the subjective symptoms, which are usually itching and burning. Certain remedies when given internally seem to act in this way; they are jabo-

randi, salicylate of sodium, antipyrin, and gelsimium.

A good external treatment is the hot soda and bran bath taken at bedtime. Where there is no raw surface, carbolic acid, one to thirty or forty, is speedy in action.

Powders of buckwheat flour, either alone or mixed with camphor and starch, or the two latter combined, afford relief in many cases.

A powder which will afford certain relief of the itching is composed of camphor and chloral hydrate, one drachm of each, rubbed together until liquid is formed and added to one ounce of starch powder.

Denuded surfaces of small area are best treated with ointments medicated with carbolic acid, lead and opium, bismuth, etc.

The appearance of the skin will usually show the form of treatment needed. If the disease be an acute one, heat, redness, swelling, and pain are present, and sometimes itching. In chronic skin affections these symptoms are less marked or entirely absent, but atrophy, thickening, fissuring, scaliness, or swelling are present, or perhaps ulceration.

In all acute conditions of the integument accompanied by the above symptoms, the soothing or slightly astringent medicines give the best results. If large areas are affected, lotions are to be used

instead of powders or ointments. Powders medicated with camphor, oxide of zinc, etc., or buckwheat or cornstarch afford relief and lessen the inflammation to a marked degree. Lotions containing carbolic acid, sulphate of zinc, etc., act in the same way.

If the areas are limited, ointments give better results. Ointments of lard are better for inflammatory affections than is vaseline. Lanolin is the best base for ointments to use on exuding or denuded surfaces, for it is more protective.

Acute inflammatory conditions accompanied by large vesicles are best treated with astringent lotions, as sulphate of zinc or acetate of lead, and when dry should be dusted thoroughly with powder. In this condition the drying and soothing ointments are also serviceable, as the diachylon.

Where large blebs have to be dealt with, it is best to remove the external skin or blister and apply soothing ointment or lotion.

Pustules should be opened and raw surfaces treated with antiseptics. Ichthyol, carbolic acid, or boric acid lotions or ointments act favorably; or the surface may first be touched with a mixture of equal parts of carbolic acid, iodine, and chloral hydrate.

Papules of an acute character or on an inflamed

surface are frequently removed by application of spirits of camphor.

If an exudate forms in inflammatory affections, this must first be removed. Soaking with almond oil for a few hours will enable one to remove the crusts.

Frequent applications of water aggravate an inflamed surface, although it may seem to give temporary relief.

When there is a scaly condition without inflammation and the condition is chronic, oily inunctions give the best results. Salicylic acid is a valuable drug for removing horny or scaly overgrowths. Five per cent. in castor oil should be rubbed into the affected parts every fifth night and a soda-and-bran bath given the following morning. After the bath almond oil may be rubbed into the parts.

Chronic inflammations with thickening and infiltrations require stimulating ointments or lotions of mercury. Tar, green soap, salicylic acid, boracic acid, iodine, or ichthyol is indicated to increase the action of the lymphatics and hasten absorption of inflammatory products. Scales must first be removed by oils, etc., and, if the areas are small, touched with equal parts of tincture of iodine, carbolic acid, and chloral hydrate.

Superficial scaly diseases spreading from a centre

are usually parasitic, and are benefited by touching with the iodine, chloral, and carbolic acid, and afterwards rubbing with a sulphur ointment.

Somewhere I have read a list of dermatological "Don'ts," written first, I think, by a Dr. Jackson. They are—

Don't forget that many diseases of the skin are due to disturbances in the general health of the patient.

Don't fail to inquire into the performance of the functions of the various organs of the body.

Don't tell your patient that it is dangerous to cure his skin disease, for you would be telling him a falsehood.

Don't forget that many cases of pruritus are due to internal causes and on them most external treatment is wasted.

Don't forget the pediculus, the mosquito, and the bedbug.

Don't give arsenic for every skin disease. Don't give it in acute eruptions.

Don't forget that acute diseases need soothing remedies. Don't forget that chronic ones need stimulation.

Don't remove hair from the scalp of a woman in order to give treatment.

Don't use thick ointments on the hairy scalp; they are disagreeable to the patient.

Don't use chrysarobin on the face or scalp, for it stains a deep mahogany-red and is very irritating.

Don't apply sulphur preparations after using mercury, because it will blacken the skin.

Don't fail to think of the possibility of every case being syphilis or eczema, and, if you don't know how to treat it, prescribe symptomatically until you can find out.

If the doctor becomes familiar with the principles laid down above, he will have little difficulty in bringing about a cure of most skin diseases or in bettering the condition of patients who are afflicted with one of an incurable nature, although he be not in possession of sufficient experience or other knowledge to make an accurate diagnosis of any one case. The writer is on friendly terms with an advertising skin and cancer specialist who follows the above rules as nearly as possible.

I will add in the following pages of this subject some formulæ that have been proved to be good ones and which are extensively used by leading specialists.

Throughout this book, prescriptions and formulæ of patent medicines will be given without mentioning source of same. Many ideas have been collected and notes taken and the source of some forgotten. So it is understood that lack of fraternalism is not

the idea. I will not take up time or space mentioning source from which the ideas and methods originally sprung.

A good remedy for removing tan or freckles is the following:

℞ Pure iodine, ʒvi;
Kalium iodide, ʒii;
Glycerin, ʒiii;
Rose water, ℥iv.

Dissolve the iodide in a small portion of the rose water to which has been added a drachm of the glycerin. Rub together and add the iodine gradually, rubbing until in solution; then add remainder of prescription.

This should be pencilled on the freckles, and after twenty minutes the skin should be sponged with the following until the iodine stain is removed. This will in a few weeks bring about favorable results.

℞ Sodii hyposulphit., ℥iii;
Aquæ rosæ, qt. i.—M.

Cream of Roses.

℞ Almond oil, ℥viii;
Glycerin, ℥iv;
Spermaceti, ℥ii;
White wax, ℥ss;
Oil of rose, gr. xxx;
Rose water, ℥vi.

The spermaceti and wax should be melted together by gentle heat. The almond oil should then be added. Then mix the rose water, glycerin, and oil of rose and add.

For dermatitis, sunburn, chapped hands, etc., this is a fine preparation.

℞ Tragacanth, ʒss;
Ex. white rose, ℥ss;
Glycerin, ʒi;
Carmine, q.s. for coloring;
Water, ʒiv.—M.

Bleaching the face is done with the double chloride of mercury generally.

℞ Corrosive sublimate, gr. i;
Tr. benzoin, gr. vii;
Water, ʒi.—M.
S. Apply twice daily.

Acne Lotion.

℞ Carbonate of ammonium, ʒi;
Sulphuric ether, ℥i;
Boracic acid, gr. xx;
Water, ʒii.—M.
S. Apply twice a day after opening the comedo or pimple.

Comedo Lotion.

℞ Resorcin, ʒi;
Water, ℥i.—M.

S. Apply after opening and squeezing the comedo.

Cream Balm.

℞ Zinc oxide, ʒss;
Rose water, ℥ii;
Glycerin, ʒi;
Perfume, gtt. xx.—M.
Apply.

A good glycerin jelly is the following:

℞ Cadmium sulph., gr. iv;
Gelatinæ, gr. lxxx;
Glycerini, ℥ss;
Aquæ, ʒii.—M.
Apply.

℞ Compound tr. benzoin, ʒi;
Glycerin, ℥i;
Solution of Irish moss, ℥i.—M.
Apply.

This furnishes a good method of applying the benzoin, which is about the only medicine that can be used as a protective and not stain or leave sediment, and on raw surfaces where little inflammation exists, in roughening of the skin, or chapped conditions, it furnishes a good treatment.

Cremaline.

℞ White wax, gr. l;
Spermaceti, gr. xxx;
Oxychloride of bismuth, gr. l;
Saxoline, ℥ss;
Mercuric chloride, gr. ½;
Alcohol, Oi;
Oil of rose, ℥iv;
Oil of bitter almonds, gtt. x.

Melt the wax, spermaceti, and saxoline, and while cooling add the bismuth and mercury and perfume.

A lotion which is sold as a patent medicine and warranted to cure pimples, remove moth patches, freckles, wrinkles, moles, cleanse and soften the skin and give it a youthful appearance, is the following:

Youth Balm.

℞ Zinc oxide, ℥i;
Mercuric chloride, gr. i;
Almonds, ℥i;
Rose water, ½ pint.

Mix rose water and almonds thoroughly, dissolve mercuric chloride in a little alcohol, and add with the zinc oxide.

The formula of a patent medicine used for tinting the fingers, face, lips, and preservation of the skin is—

℞ Saxoline, gr. 400;
Wax,
Spermaceti, āā gr. 30;
Eosin, gr. 10.

The "black eye" caused by a bruise, or any ecchymosis, is best treated with the following formula:

℞ Tr. capsicum, ʒii;
Gum arabic, ʒii;
Glycerin, ʒss.—M.
S. Paint and allow to dry. Repeat several times.

DEPILATORIES

Many drugs are used for this purpose, but their action is the mere burning off of the hair and having no effect on the roots whatever. Barium sulphide, or quicklime and starch equal parts, are the ones commonly used.

There are now establishments in every city and large town where fancy prices are charged for removing superfluous and aberrant hairs. Their method is by the use of electrolysis, and this is the only one that is of any use. The action of the electricity destroys the hair-follicle, thereby preventing the regrowth of the root.

The galvanic current is the one that it is necessary to employ, and, while not absolutely necessary, more desirable results are gotten by a battery having a milliamperemeter attachment, so that the strength of the current can be accurately measured. Very good results can be secured by just using two ordi-

nary dry cells. These will produce about the proper strength of current to give results.

A very fine platinum, gold, or steel-pointed needle is introduced into the hair-follicle until it pierces the bottom of the canal. This can be noted by being able to feel that the point of the needle has met with a slight resistance. This will be for an instant only, when it will seem as if it had become free and slip by this point. This will be the time to turn on the current.

The needle should be attached to the negative pole of the battery, for this is the electrode that is used for destructive purposes. The positive pole has only sedative properties.

Always introduce the needle while the circuit is broken.

After the bottom of the follicle has been pierced the connection should be made, and in from three to seven seconds a slight frothing or a bubble or two is seen oozing out from the mouth of the channel around the needle. This will usually destroy the root.

Always break the current before removing the needle, or the patient will experience the shock of a stinging pain.

If the operation has been successful, the hair will easily come out and without pain to the patient. If

the removal of the hair is not easily accomplished, the action of the current has been insufficient and a second application will have to be made.

A great many hairs can be removed at one sitting. Usually the work can be kept up for an hour or more and fifty or more hairs gotten rid of at the one sitting, but it is best not to remove two that are approximated the same day. It is best to select those from one-eighth to one-quarter of an inch apart, to prevent the possible occurrence of local irritation.

The most simple instrument in use, and one which does good work and is cheap, is a small, barrel-shaped affair, having in one end an opening to hold the needle and in the other a similar canal for the introduction of the negative electrode. The latter when in place touches a wire which connects with a spring on which is a small button. By pressing the button the connection is made with the needle, thus making the current. Releasing the button breaks the current.

A wet sponge should be attached to the positive electrode and held in contact with the skin at a small distance from the site of the operation.

BUST DEVELOPMENT

Massage, Swedish movements, exercise, proper breathing, etc., are the only methods by which the bust may be properly developed. Suction-pumps are extensively advertised, but are of little use.

Deep breathing for five or ten minutes three times a day will work wonders in some people in a few months. The formula of a preparation advertised to develop any part is the following:

℞ Oil of peppermint, ʒss;
Oil of cajuput, ʒii;
Oil of sassafras, ʒi;
Ex. saw palmetto,
Cocoa butter,
Lanolin, āā ʒiv.

Do not use this on the face.

It is the duty of the physician to call the attention of the mothers of flat-chested girls to the advisability of giving bust development attention along these lines and win the everlasting gratitude of the patient.

The muscles of the abdomen should be drawn inward and upward, and arm swinging, deep breathing, walking as nearly on the toes as possible during movements, standing on the ball of one foot and

reaching with one hand as high as possible should be practised. This done twice or three times a day will bring about surprising results in a short time.

Lanolin is the basis of all the ointments used for developing the bust. I have seen it used with apparent benefit in several cases. Massage is kept up for an hour or so each day, using the anointed hand.

RECTAL DISEASES

If there is one condition that has been thoroughly neglected by the general practitioner of medicine, it is abnormalities of the anus and rectum, and by so doing he has left to the quack this field, which is rich in opportunities to test one's skill and reap a golden harvest by the use of simple methods properly employed. I hope to be able to outline the principal methods in use by the men who are curing pathological conditions of the rectum by the use of medicinal agents employed in different ways, and also to give the surgical treatment of some conditions to emphasize its practicability to those not using these measures.

The trouble is that the doctor has informed his patient that a major operation was necessary, when in reality all that was needed was to inject a little medicine into a hemorrhoid. Many a patient has been frightened out of the legitimate doctor's office and into that of the advertiser by being told that it would be necessary to go to a hospital, be chloroformed, his piles cauterized, etc., when this patient would rather have the disease than be anæsthetized. This is not being said in ridicule of surgical methods,

but to show the treatment employed by men who do talk against the methods of the legitimate specialists.

A few years since rectal diseases were considered to require major operations, and the majority of ordinary physicians thought that all which were of any magnitude should be sent to the surgeon. As a consequence, they were dropped from the practice of the ordinary doctor, and patients unloaded their dollars into the pockets of the men who advertise to cure all diseased conditions of the rectum by medicinal measures entirely.

The rectal surgeon employs several methods of operating on hemorrhoids, one of which is by the use of the ligature. This treatment is condemned by a great many physicians as obsolete and entirely unscientific.

Removal with the clamp and cautery is spoken of as an ideal treatment by one faction, and considered entirely wrong by many prominent physicians and surgeons, who prefer the ligature.

The general practitioner considers the methods of the surgeon too difficult for him to undertake, and, not being in possession of methods that he can handle, the patient drifts from him to the specialist or advertiser.

It is perfectly natural for the rectal surgeon to condemn injection methods for the removal of hem-

orrhoids, for it is expected that his methods will be talked ahead of that of others to the prospective patient.

The clamp and cautery and the ligature are both speedy means of treating these tumors; but the average patient prefers a treatment that to him is more gentle, requiring no stimulation of his courage previous to operation, and which will give equally good results in most cases.

I have proved to my entire satisfaction that almost all hemorrhoids can be removed by properly injecting the right medicine.

Simple external piles are probably best treated by the ligature, but they can also be easily removed by the injection method. My preference is the ligature for most cases.

A great many doctors would not use injection methods to remove hemorrhoids on account of bad results from metastasis, etc., but in the past, where bad results have followed this treatment, in the majority of cases it has been due to improper handling of the injection fluid. In almost every case the treatment was given by some lay person who had bought the prescription and used it as he thought best, without regard to the place of injection or the quantity used. The injection method in the hands of the educated and experienced physician is a very

valuable treatment in selected cases, and he, with the judgment that former study in this line has naturally given him, will be enabled to avoid the improper use of a remedy that gave bad results to one who had no knowledge of the fundamental rules of medicine.

I would certainly advise any physician to employ the injection method in almost any case of hemorrhoids, and think that he will be agreeably surprised with the results. I think that it is no more dangerous than other methods, and certainly seems on a less major scale to the ordinary patient than other treatment.

COMMON CONDITIONS

The most common pathological condition of the rectum is hemorrhoids; the next is probably prolapsus. Then come ulceration, fissure, fistulæ, proctitus, polypus, etc. Of course the physician is supposed to be sufficiently familiar with the anatomy, physiology, pathology, etc., of the parts to differentiate different conditions, grossly at least; but some points will be given with regard to diagnosis, etc.

That all periods of life do not suffer equally from the several diseases of the rectum is apparent to every observant practitioner. Children freqently have prolapsus ani and polypi, but rarely other rectal affections. Elderly persons also enjoy a relative

immunity from rectal disorders and suffer infrequently from the more common troubles, hemorrhoids and fistulæ. Carcinoma is more frequent with them; but even this is, comparatively speaking, a rare disease. Middle life is the time when piles, ischiorectal abscesses, fistulæ, and fissures are most prone to occur.

The Jews as a race are more liable to rectal diseases than any other people. The North American Indian is almost exempt from rectal diseases. This is claimed by an eminent authority, Van Buren, I believe, who spent several years among several tribes.

GENERAL DIAGNOSIS

It is always well to question the patient closely with regard to heredity, use of alcoholic liquors, tobacco, excessive venery, spitting of blood, night-sweats, loss of flesh, and specific history, if any, for a complete history may throw such light on the case that a certain prognosis can be given.

In questioning with regard to heredity particular attention should be given to heart, liver, and malignant rectal diseases. The sexual organs of women should receive consideration, also the question whether there be constipation or diarrhœa.

Is there a discharge? If so, what is its nature?—whether purulent, bloody, or mucous, whether occur-

ring before or after defecation, or is it independent of bowel movement?

What is the nature and extent of any protrusion, and when does it occur, at the time of defecation or constantly?

Pain should be considered with regard to its location, the time of its occurrence, whether before, during, or after defecation; also its character, etc., whether itching, burning, sense of fulness, tenesmus, etc., are experienced. The subjective symptoms may enable one to make an accurate diagnosis, but investigation as to them is, of course, only preliminary to that of the objective.

Digital examination is made with the forefinger well lubricated. This should be done very slowly, pressure being made forward and upward for about an inch as if to pass from the perineum to the umbilicus, after which it should be inclined backward and slowly introduced its full length. In this manner four inches of the rectum, the prostate, the neck of the bladder, the uterus, the anterior surface of the coccyx and sacrum, the ovaries and tubes or the seminal vesicles and vas deferens may be felt by one having a long finger and some experience. When making rectal examinations it is always well to bear in mind that two or more pathological conditions can exist at the same time.

The speculum is a very desirable instrument to diagnosticate and treat rectal conditions. There are a number of forms. One should have a Brinkerhoff speculum for treating hemorrhoids by the injection method. This is the best instrument for that purpose. Also the bivalve of different lengths and the Sims's fenestrated one.

When introducing the speculum the same precaution should be taken as when introducing the finger,—that is, forward and upward for an inch, then backward into the hollow of the sacrum. The speculum should be warmed and lubricated with oil before attempting to use it.

Other instruments that the doctor should have on hand are a flexible probe made of silver, to be used for exploring fistulous tracks, a trocar or exploring needle to determine contents of any swelling or collection of fluid, a short and long proctoscope, and a sigmoidoscope; also sponge-holders, a hypodermic syringe with flexible silver cannula attached, which is useful in determining whether a fistulous tract is complete or not. A plenteous supply of cotton and towels should be on hand.

HEMORRHOIDS

External and internal are the classification of this lesion, which is due to a varicose condition of the

hemorrhoidal veins and other blood-vessels of the rectum.

The internal hemorrhoids are attached inside the sphincter ani, and the external are outside this muscle. The internal are covered with mucous membrane and vary greatly with respect to size, color, and shape.

There are the arterial, venous, and capillary hemorrhoids. The first are bright red in appearance, the venous are blue or purple, and the capillary are dark. The arterial and capillary varieties have a great tendency to bleed. The internal hemorrhoids have the power to increase in size, which they almost always do while being handled, making operation more easy. The action is similar to that of the erectile tissue in the penis and clitoris.

All this is very good to know, but about all that is necessary to know is whether the pile is external or internal and whether it is large or small.

The small capillary hemorrhoids bleed very easily and may sometimes endanger life; the larger pile never does. The large internal pile protrudes; the capillary does not. The treatment of both varieties is the same, without regard to arterial, venous, or capillary origin.

External hemorrhoids are of two varieties. The cutaneous form is merely a tag of skin caused by

friction of the clothing, constipation, using printed paper as a detergent, foul discharges from the rectum or vagina, scratching with finger-nails, or any other method by which an irritation can be set up.

The second variety is due to a thrombus of clotted blood. This may be caused by the breaking of a venous wall or be due to enlargement of a vein. This variety is covered by both mucous membrane and skin and is located at the anal margin.

Stricture of the urethra, enlargement of the prostate, straining at stool, the pressure of a heavy pregnant uterus, cystitis, stone in the bladder, an attack of gonorrhœa, or fissure of the anus may induce this condition.

THE TREATMENT OF HEMORRHOIDS

The writer is a firm believer in the utility of the cautery and ligature or of any method which is best suited to the physician and the patient.

The physician can secure larger fees if he has given an anæsthetic, dilated the rectum, and cauterized or ligated a patient's hemorrhoids, than if he simply injects a few drops of a strong solution of carbolic acid once or several times and reaches the same results.

A great many patients will not be anæsthetized, neither will they allow a knife to be used without an

anæsthetic; and, if some person who is posted on injection methods offers to cure their piles without pain, cutting operations, general anæsthesia, or detention from business, they will not be long in giving him the work and fees, whether he be quack or legitimate specialist.

It is certainly to the interest of the general practitioner of medicine to post himself on these methods; for in most instances he is not in condition to do cutting operations, on account of being too busy with his general practice and having no time to give attention to the technique of surgery, as this requires a great deal of study and practice to make one as skilful as it is necessary to be to undertake operations of any magnitude. If the general physician turns away all of these patients, he will deprive himself of considerable money and, what is worse, his reputation cannot help but be somewhat affected.

Drugs Used.—The drugs that have been used for the treatment of hemorrhoids have been almost numberless. The specialist, the quack, the general physician, and all who are skilful in treating this condition by the injection method have, however, thrown all other remedies aside for one. Carbolic acid, either alone or in combination with olive oil, is the remedy that now outclasses all others.

The stronger the solution the better the effect. A five or even a ten per cent. mixture should not be used, but at least forty parts of carbolic acid to sixty of olive oil.

The following is the formula in common use:

Common Formula.

℞ Carbolic acid,
Olive oil, āā oz. i.—M.

S. Inject sufficient to cause the tumor to assume a white or gray appearance.

The amount necessary will depend, of course, on the size of the tumor. Two or three drops will answer for small piles, while large ones may require twice or three times that many.

It is well to have some cotton saturated with alcohol handy to wipe away any of the carbolic acid solution that may come in contact with other tissues or the outside of the pile, for alcohol is a perfect antidote to carbolic acid.

After the hemorrhoid has been injected it is a very easy matter to ligate it with silk without pain. The carbolic acid acts as a good local anæsthetic, and when you have tied off a pile, future injections are unnecessary. After ligation the pile should be lanced or the top cut off with a pair of shears.

The Hypodermic Syringe. — The hypodermic

syringe should be graduated to enable one to determine the amount of fluid that is being injected. The needle should be of good length and have a fine canal, for the larger-calibre needles allow the fluid to escape more easily, thus cauterizing the rectum or outside of the tumor. As mentioned before, this can be remedied by the antidotal action of alcohol, should it occur.

If the operator wishes to regulate the depth to which he intends to place the fluid, he can do so by having a set-screw on the needle, which can be fastened at any part of its length, thus making it impossible to introduce the needle too far or shove it through the pile. A simple method is to use a small piece of card-board, which can be perforated by the needle and will answer as well as any instrument made for the purpose.

Technique of the Operation.—When operating, the patient should be placed in the lithotomy position or on either side. Introduce the speculum and, when the pile protrudes, grasp it with a sharp-pointed tenaculum and inject as many drops as are necessary to whiten the tumor slightly. The injection should be made as nearly as possible into the centre of the body of the pile and any excess wiped away with alcohol.

It is well to have the patient in such a position

that the tumor will hang downward. This is not necessary, but is somewhat advantageous.

Some operators use a snare, such as is used in nose and throat work. After exposure, the tumor is surrounded with the wire, which is drawn sufficiently tight to prevent the absorption of any of the injection fluid into the general circulation. This mode of procedure is a handy method of fixing the pile so that the injection can be easily made, but if the fluid contain enough carbolic acid the action will be a cauterizing or coagulating one, thus preventing any tendency to the absorption of any amount of the acid.

I would advise any one using the injection method to supply himself with a Brinkerhoff speculum. This, after being introduced and the slide drawn sufficiently, will allow the tumor to protrude through the opening, and other tissues are held away from the site of the operation. This is not so nicely done by the ordinary rectal speculum.

The pain produced by the injection of hemorrhoids amounts to nothing, especially at the time of the operation, on account of the anæsthetic properties of the carbolic acid. If too much acid has been used or it has been injected too near the base of the tumor, pain may come on a few hours afterwards. Ulceration has been caused by the too free use of

the fluid or by improperly injecting the same too near the rectal wall.

One should take plenty of time to deal with hemorrhoids by the injection method. Two of the smaller tumors or one large one should be injected at each treatment, and about two weeks should intervene between the sittings.

If bleeding should take place, the rectum should be tamponed and astringents applied to the bleeding points. Silver nitrate or zinc sulphate is probably the best. Powdered tannin also is very efficient.

Should retention of urine occur, it should be treated as when having any other cause. The patient should be catheterized when necessary or receive any other treatment which the judgment of the physician may deem best.

The Treatment of External Hemorrhoids.—All external piles should be cut off. In most instances it is best to use the ligature, but if they are very small and of the cutaneous variety, all that is necessary is to cut them off near the base, check the hemorrhage by compression or astringents, and touch the raw surface with pure carbolic acid, which should be washed off with alcohol.

The larger hemorrhoids it is necessary to ligate, which is done in the following manner.

The thrombotic pile, or that covered partially by

mucous membrane, can be partially anæsthetized by applying some cotton saturated with a ten per cent. solution of cocaine. Allow this to remain in contact with the tumor for several minutes, after which inject several drops of a three per cent. solution of cocaine just under the skin or mucous membrane around its base.

Now take a knife and cut the outer integument and mucous membrane around the base of the tumor. This severs the sensory nerves and thereby diminishes or completely abolishes the after pain.

The pile should next be ligated with silk at the cut surface. A portion of the strangulated part is then excised and the stump is touched with the pure carbolic acid, which in turn should be washed off with the alcohol. This may be dusted with iodoform, a compress applied, and the case treated as the symptoms indicate.

A favorite method of the writer of treating these hemorrhoids is to surround one with the snare and inject it with the carbolic acid. This anæsthetizes it sufficiently to make the circular cut of the skin and mucous membrane and the ligation of the pile almost painless. The pile is then snipped off and the stump treated as mentioned above.

(For formulæ see pages 245–247.)

Case of hemorrhoids, showing Brinkerhoff's speculum, hypodermic syringe, and large hemorrhoid.

DESCRIPTION OF CASES OF INTERNAL HEMORRHOIDS TREATED BY THE INJECTION METHOD

CASE I.—This case is that of a man, aged thirty, who had three large hemorrhoids, one or more of which constantly protruded. They were as large as an unshucked hickory-nut and gave intense pain almost all the time.

The man had typhoid fever a couple of years before he applied to me for treatment and had been troubled with constipation before the fever and to some extent after that time. These were the only traceable symptoms which might have been a cause in the production of the hemorrhoids.

The illustration showing pile treatment is from a photograph of this case.

The patient was put in the position shown in the illustration and the Brinkerhoff speculum was warmed, oiled, and introduced. The slide was withdrawn, and one of the hemorrhoids at once protruded through the opening.

The tumor was surrounded with the wire snare, which was drawn sufficiently tight to constrict its base, but not tense enough to cause bleeding. The hypodermic needle was now inserted into the constricted tumor about one-eighth of an inch, and five minims of the carbolic acid formula were injected.

This amount produced a whitening of the tumor, thereby showing that a sufficient quantity had been introduced. After a moment the snare was removed and the speculum withdrawn.

Some uneasiness was experienced by the patient for a couple of days, but at the expiration of the fourth day I was enabled to repeat the treatment. This was again given after an interval of one week, and several days afterwards the tumor had entirely disappeared.

Three injections were necessary to give results with one of the others present, and the remaining one required but two.

Case II.—This case is that of a married lady who had given birth to one child. This seemed to be the cause of a severe case of hemorrhoids, consisting of two large tumors of the internal variety. One or both of these would protrude when only a slight amount of straining was induced, and during defecation the pain was very pronounced.

Since the birth of the child the woman had become very irritable and in apparent constant misery, which her husband attributed entirely to nervousness, as did also a physician who had given her several uterine treatments with no relief to the patient.

Her symptoms were a feeling of weight in the pelvis and an intense pain in the coccygeal region, which extended up the sacrum almost to the lumbar region and seemed to be an affection of the bone. I nevertheless determined to treat only that which was in sight, and requested leave to treat the hemorrhoids by the injection method.

This permission being granted, she was placed in the usual position. The Brinkerhoff speculum was warmed, oiled, and introduced. One of the tumors immediately protruded through the opening in the speculum made by the withdrawal of the slide.

"I noticed that these hemorrhoids almost doubled in size as a result of the irritation which the handling produced. This symptom is markedly present in many cases and to some extent in all. The enlarging process is so pronounced that it seems to be produced by erectile tissue, but is really caused by the more rapid entrance than exit of blood."

I now applied a ten per cent. solution of cocaine on absorbent cotton, which was held against the tumor for five minutes. The snare was now applied and the injection made. After the tumor began to change color, it was tied with braided silk back of the snare. The apex of the tumor was now clipped off with scissors, and the field of operation wiped with cotton which had been soaked in alcohol to

antagonize the effects of any of the carbolic acid which might come from the tumor.

The other hemorrhoid was treated in a similar manner to that given the first one, and the patient was instructed to remain in the recumbent position for a day.

In a couple of weeks the woman said that she never felt better in her life and that all of the pains and feelings of distress had vanished.

The reason for giving the injection of the carbolic solution and at the same time applying the ligature is to get the cauterizing and antiseptic action of the acid. This causes the stump to dry and wither away more promptly. The acid also has an anæsthetic action which is very desirable.

FISTULA

This condition is a very frequent one. By some surgeons it is claimed that more patients apply for the treatment of fistula than do patients having hemorrhoids.

Fistulæ are classed as *complete*, which have two openings, an external and an internal, and *incomplete*, of which there are two varieties, external and internal.

The external incomplete has an external opening only and its canal leads to a blind pouch, which

may contain foreign material, as pus, fecal matter, etc.

The internal incomplete has an internal opening, which also terminates at some place inside the tissues.

It is usually necessary to use the speculum to locate the internal variety. In many instances the canal takes a circuitous route or may run in any direction, making it difficult to effectually treat the entire diseased surface or to locate the blind pouch, and in these instances the lesion usually recurs.

Fistulæ generally start from an abscess, which in turn may be caused by inflamed hemorrhoids, injury to the bowel by foreign bodies, as fish-bones, tubercular deposits, etc.

The subjective symptoms of fistula are not very marked as long as there is free exit to the secretion it contains, but if the opening becomes clogged an abscess will form, with its attendant pain. Usually the patient is not much inconvenienced by a fistula as compared with the excrutiating pain of fissure.

Diagnosis.—The patient should lie on the affected side, with the limbs drawn up, and usually the opening can be seen at once if close to the anus, but sometimes it is very small, concealed behind folds, or may be closed temporarily. When this is the case, it can be located by the induration which is almost always present around the opening. This

can be felt, and slight pressure will cause a drop of secretion to be forced from the fistula.

When the outer opening is located, it may be possible to introduce a probe and follow the canal to its internal opening. This can be more easily done if the probe is introduced slowly and gently, thus avoiding any spasmodic action of the sphincter.

Blind internal fistula usually give more pain than the other varieties, on account of a larger opening. This allows fecal matter and foreign bodies to gain entrance, thus causing increased inflammation and sometimes abscess formation.

In this variety, digital examination reveals an indurated and painful spot in the ischiorectal fossa, and often an irregular ulcer of considerable size in the bowel. Usually the contents can be pressed out with the examining finger, but to make diagnosis certain it is necessary to bend a small probe in the required direction and introduce it into the canal as far as the swelling which is usually present.

Fistulas of this kind are usually caused by the breaking up of a tubercular deposit or by a foreign body perforating the mucous surface of the bowels.

Treatment of Fistulæ.—As a rule, fistulæ can be best treated by operation, on account of a number of canals branching from the one opening to different blind pouches, and the doctor is more certain to

locate all of them if the patient is under a general anæsthetic, the rectum dilated, etc. If the canals are not all treated, there will surely be a recurrence.

For the surgical treatment of fistula I would recommend that the technique be gotten from suitable works on that branch. There are several methods of treating this condition which I will mention.

If it is possible to run an elastic ligature through the canal, it can be drawn tense and held so by the clamping of a lead button or perforated shot over the two ends. This will cut its way to the surface and the parts will heal from the bottom as headway progresses. It may be necessary to tighten the ligature in a few days or introduce a second one.

The time taken by the ligature to cut through will depend on the amount of tissue through which it has to pass. Usually a period of five or six days is required.

This method will effectually cure many fistulæ, especially if but a single canal exist.

The perforated shot should always be used, instead of tying the rubber, to prevent slipping.

Another method is to inject peroxide of hydrogen into the canal, and, when it has been squeezed out, pure carbolic acid can be injected, and this followed by alcohol in a few minutes. This is a very good method, and has proved very curative in the hands of

the writer. Sometimes it is necessary to scarify or irritate the lining of the canal with a rough probe or suitable scarifier previous to injecting the acid and alcohol.

Tincture of iodine is also a very useful remedy, and probably as good as any remedy that is being used for the cure of fistulæ. It is necessary that healing take place from the bottom, and, if the canal have any material depth, it is best to introduce a small piece of gauze into the opening after the injection in order that forming secretions may gain exit. If healing does not take place and other injections are necessary, eucalyptol should be used once in every five or six days.

The Brinkerhoff injection fluid for the cure of fistulæ is the following:

Brinkerhoff Injection Fluid.

℞ Acid. carbol., gr. iii;
Liq. ferri subsulph., ʒiss;
Extr. hamamelidis dest.,
Glycerini, āā ℥ss.—M.

S. Inject fistula and force fluid to the bottom with a finger. This should be done every third day.

FISSURE

This is a very painful condition and capable of disordering the reflexes to such an extent as to make almost a nervous wreck of many persons.

It is a small crack or ulcer, usually situated just within the anus, and seldom having a greater depth than the skin or mucous membrane. This is sufficient to lay bare certain nerves of sensation, which become irritated by foreign matter and thus produce intense pain.

Causes.—Constipation or any irritant is the cause of this condition. After the fissure becomes established, its healing is prevented by the action of the sphincter together with the irritation of its surface by the bowel contents during defecation.

Treatment.—In simple cases the application of astringent lotions or ointments before and after defecation will usually effect a cure in a short time. If this fail, scarify the surface of the fissure and apply pure carbolic acid, and in a few moments, when the touched surface is thoroughly cauterized as noted by the change of color, apply pure alcohol to neutralize the acid. Antiseptic powder should be used often, and the bowels not be allowed to move for a couple of days.

Dilatation of the sphincter under anæsthesia sometimes cures the condition, especially if the bowels are constipated for a few days afterwards, thus giving absolute rest to the parts. The patient should lie in bed for several days.

Division of the sphincter, either completely or

partially, is sometimes necessary and can be done under local anæsthesia. Pass a tenotomy knife through the mucous membrane, cut outward towards the skin, and divide the muscle but leave the skin intact. This makes a subcutaneous division, which is very desirable. Rest in bed the proper time to suit the case is important. The bowels should be constipated and after-treatment with regard to cleanliness, etc., observed.

ULCERATION OF THE RECTUM

This condition is serious in itself and frequently leads to fistulæ and stricture.

It results usually from injury, the presence of foreign bodies, retained scybalous masses, too frequent use of enema tubes, inflammation of the veins, thrombosis, and dysentery. When the latter is the cause, the ulcers are small and numerous, and after cicatrization takes place they have a warty feel and are sometimes taken for scirrhus, tuberculosis, or syphilis.

When the former is the cause, the ulceration begins in the adenoid tissue between the follicular glands. Little nodules make their appearance first, of millet-seed size. These become caseous after a time, break down, and leave small depressions, which gradually become larger, forming circular ulcers with overhanging edges.

In syphilis the anus is chiefly attacked. Superficial sores occur around its margin, which leave irregular folds of skin, between which are painful fissures similar to those at the angles of the nose and mouth.

When either of the two latter causes is probable, the history of the case will assist in clinching a diagnosis.

Diagnosis.—If the ulceration is near the anal margin, the symptoms are similar to those of fissure. When, on the other hand, they are higher,—above the level of the external sphincter,—they are sometimes vague.

Diarrhœa is a prominent symptom. This may cause but little inconvenience in mild cases, but in the more severe cases there is a constant sense of fulness. Mucous and coffee-ground discharges are present, their amount corresponding with the severity of the case. There is pain after defecation. Control of the sphincter is lost in advanced cases; vegetations and excrescences form, between which are painful fissures, and as the case progresses all these symptoms become intensified and the patient's general health becomes materially affected.

Treatment.—If the ulcers are visible, they can be touched with a strong solution of nitrate of silver, two drachms to the ounce. The surface can be scari-

fied and touched with pure carbolic acid, which in turn should be washed off in a few minutes with alcohol.

The patient should be treated twice a week in this manner until cured.

The patient should be given a solution of protargol to inject once each night when retiring, the strength of the solution varying to suit the case, or any one of the new silver preparations that are now manufactured by different firms throughout the country.

There are many formulas of suppositories and solutions to be used for this condition, but there is none so good as these preparations for ulcerative or catarrhal conditions.

In severe cases rest in bed is very essential. Straining at stool must be prevented by having the bowels washed out morning and evening with warm water. Care must be taken not to use salt in the water when the silver preparations are used, as it neutralizes their action.

After the silver solution has come away the following ointment should be applied through an ointment introducer:

℞ Hydrarg. chlor. mite, gr. x;
Petrolatum, ℥i.—M.

Nitrate of bismuth, iodoform, etc., may be used instead of the calomel ointment. Starch and opium injections for the diarrhœa should not be neglected.

PROLAPSUS OF THE RECTUM

This condition is most common in children, but may occur at any age. It is a protrusion of the mucous membrane of the lower part of the bowel, and in bad cases may include the muscular coat through the anus.

The causes are straining at stool, general weakness, relaxed sphincter, phimosis, stone in the bladder, stricture of the urethra, constipation, worms, and other rectal diseases.

Treatment.—The cause should be located and properly treated.

In simple cases reduction can be made by inserting the forefinger into the rectum and pushing in the mucous membrane with a finger of the other hand. Sometimes firm pressure on the protruding part for ten minutes will cause a reduction. In some cases, where inflammation exists, it may be necessary to apply an ice-bag or poultice or administer an anæsthetic.

The after-treatment includes starch and opium injections for the inflammation and the silver preparations for relaxation. The parts can be retained by

a T-bandage. Defecation should take place while the patient is lying down.

PRURITUS

This is a very common condition, and the treatment will depend on the cause, of which there are a number. The most common are mucous, purulent, or acid discharges from the rectum, coming from various conditions. These should receive appropriate treatment at the same time that the pruritus is remedied. Many times this condition has a parasitic origin.

The following is the best antipruritic ointment, in the writer's experience:

℞ Gum camphor,
Chloral hydrate, āā ℥i;
Petrolatum, ℥i.—M.

Rub the camphor and chloral together in a mortar until a liquid is formed, then add the vaseline. Apply three times a day or when itching.

Another good formula is the following:

℞ Camphor,
Carbolic acid, āā gr. 15;
Zinc oxide, gr. 12;
Petrolat., ʒj.—M.
S. Apply when itching.

POLYPI OF THE RECTUM

A polypus is usually pedunculated, but may be sessile if the base is small, or may be a new growth, as adenoma or fibroma. Generally it is single, growing within a short distance of the anus, from the dorsal surface of the bowel, but sometimes there are two or more. Adenoid polypi are sometimes difficult to distinguish from internal hemorrhoids.

Treatment.—Suitable ones may be remedied by the injection of the same solution that has already been mentioned for treating hemorrhoids. In the case of others it is necessary to ligate and cut off the top, or to use the snare and cauterize the raw surface.

Polypi are prone to bleed easily. This tendency should receive consideration in some forms of treatment. If the ligature is used, precautions should be taken to avoid ulceration.

The following are a number of formulæ used by different advertising specialists for treating hemorrhoids by the injection method, and, as will be noted, carbolic acid is either the only active ingredient or is one of them.

℞ Acidi carbolici, ℥i;
Aquæ,
Glycerini, āā ℥i.—M.

S. Inject sufficient of the solution to cause the tumor to whiten or turn a gray color.

Several injections, with an interval of from five days to two weeks, are sometimes necessary to complete a cure.

℞ Resorcin., gr. xv;
Acid. carbolic., ʒi,
Glycerini,
Aquæ, āā ʒi.—M.
S. Inject.

Resorcin is said to prevent absorption of the carbolic acid. This property the drug seems to possess.

Brinkerhoff is said to have used the following formula:

℞ Chloride of zinc, gr. x;
Carbolic acid, oz. i;
Olive oil, oz. vi.—M.

Of this solution from four to eight minims should be injected into each hemorrhoid, according to its size, and only the internal variety injected.

Mayer's Formula.

℞ Tr. thuja (Lloyd's), ʒi;
Carbolic acid, ʒii;
Water, q.s. ad ℥i.—M.

Eberth's Pile-Solution.

℞ Carbolic acid,
Fl. ex. ergot,
Olive oil, āā ʒii.—M.

Dr. Hyberdean's Formula.

℞ Carbolic acid,
Glycerin, āā ʒi;
Fld. ex. ergot, ʒss;
Water, ʒii.—M.

Dr. Wever's Formula.

℞ Carbolic acid, ℥ss;
Hydrocyanic acid, ♏ii;
Creasote, gtt. x;
Olive oil, ℥ss.—M.

Dr. Hebra's Formula.

℞ Carbolic acid, ℥i;
Sodium biborate,
Sodium salicylate, āā ʒii;
Glycerin, ℥i.—M.

Dr. Green's Formula.

℞ Carbolic acid, ʒii;
Fld. ex. hamamelis,
Water, āā ʒv.—M.

Dr. Hammol's Formula.

℞ Carbolic acid, ℥i;
Glycerin, ℥ss;
Resorcin, ʒss;
Fld. ex. ergot, ℥ss.—M.

In the writer's opinion, no formula should be used which contains less than forty per cent. of carbolic acid. This drug in one-half strength gives far better results than the weaker solutions.

RHEUMATISM

In a neighboring city there is located a finely educated advertising specialist who hardly has time to deal out any other form of medication than that of an antirheumatic character. He advertises by the use of small booklets, which are distributed to the laity for many miles around the country and in other towns in his vicinity.

His success is so remarkable that, if the family physician of almost any person who has sufficient means to pay cash for treatment does not get almost immediate results in rheumatic cases, either the rheumatic doctor or his medicine is at once demanded by the patient. I have heard many of his patients say that no doctor's medicine ever acted like that secured from Dr. M. in the cases of rheumatism that they had seen him treat.

I had a chance to befriend this old gentleman in such a manner as to obtain his everlasting gratitude, so that, when he was asked to give me a description of his methods of treating the various forms of rheumatism, he gladly consented.

While much of his treatment was known to me and is in the possession of the medical profession in

general, the man is an observing specialist of large experience, and his thoroughness and original ideas on the subject prompt me to give the points obtained from him on the treatment of the different forms of rheumatism, and at the same time adding at proper places other important ideas collected from various reliable sources, coupled with my own experience in handling such cases.

MUSCULAR RHEUMATISM

This is a very painful affection of the muscles, fascia, and periosteum, and is usually the result of catching cold as a result of exposure.

The general constitutional condition is not much affected. No fever may be present in the most severe cases, while the very severe pain that may be present in the most simple cases will lead the patient to believe that his disease is of a terrible nature.

It is from this class of patients that I get my most extensive advertising, says the specialist.

They may have the intercostal rheumatism which leads many nervous persons to believe that they have some form of heart disease.

Lumbago is the most common and painful form. The muscles of the loins and their tendinous attachments are affected, which incapacitates the patient from performing any of his regular duties.

Torticollis is another form, being more constantly present in young subjects.

If the condition has just begun, the first measure that I prescribe is to have the patient take a Turkish bath and then be wrapped in white flannel, for the red will cause some irritation of the skin in some subjects. This is in cases of a severe type. This is given once each day while severe symptoms are present.

If the surroundings will not permit of the Turkish bath being given, an equally good procedure is to place a number of hot bricks in the bottom of a tub and over these pour a couple of pailfuls of boiling water. Place a chair in the centre of the tub and after the patient is seated, surround both him and the tub with a blanket. He should be allowed to remain in this position for fifteen minutes, or until perspiration has been profusely started and kept up for a few moments. Then the patient is well rubbed with absorbent towelling or cloths and put to bed, warmly covered, and permitted to sweat for a couple of hours; then he is rubbed dry and the excess of covering removed, and the rubbing occasionally repeated until sweating discontinues.

The following formula is the one that is my routine prescription for this condition, to be used the first week if necessary, says the specialist.

℞ Tr. aconite, ʒi;
Ammonium chloride, ℥ss;
Potassium nitrate, ʒiii;
Fl. ex. cimicifuga, ʒii;
Syrup, q.s. ad ℥iv.—M.
S. Teaspoonful every two hours.

The following formula is generally prescribed. It is an old prescription, and has been given the name of Russian spirit, a liniment for rheumatism.

℞ Olei sinapis, ʒss;
Olei terebinth., ʒiii;
Camphoræ, ʒiv;
Aquæ ammon. fort., ʒiii;
Tr. capsici, ʒiv;
Alcoholis, q.s. ad ℥vi.—M.
S. Apply as indicated.

Another of his favorite prescriptions for muscular rheumatism is the following. This is prescribed after the case has run a week or more.

℞ Tr. colchi. sem., ʒiii;
Pulv. resin. guaiaci,
Potassii iodidi, āā ʒi;
Aquæ cinnamomi,
Syrupi, āā q.s. ad ℥vi.—M.
S. Teaspoonful in water every two hours.

In many beginning cases the following prescription is given for the first few days, or until there is no more severe pain.

℞ Dover's powder,
Quinine sulph., āā ʒi;
Acetanalid, ʒss;
Sodium bicarb., ʒi.—M.
Make into xxiv tablets.
S. One every two hours when indicated.

ACUTE RHEUMATISM

"This is the form of rheumatism that during February, March, and April is sure to keep me very busy," says this specialist.

I always tell my patients that this form of rheumatism is due to retrogressive nutritive changes, or that the trophic nerve-centres becoming inflamed by catching cold, metabolic changes result, with the formation of lactic acid, which, being a foreign body to that part of the system affected by rheumatism, causes the disease.

An anærobic bacillus has been found in some cases of acute articular rheumatism during life and after death, which grows in most media, especially in the liquid ones. Inoculation into animals produced several very pronounced conditions, such as pleuritis, endocarditis, and pericarditis. This has

been demonstrated by a number of observers, and, while not positive proof of its being the specific cause of the disease, it may be possible that future demonstration may enable the bacteriologist to fulfil all the laws of Koch,—namely, its constant presence, capability of culture growth, and the production of the disease.

Multiple joints are usually affected at the same time. In the beginning a rheumatic tonsillitis is many times present and needs that form of treatment.

Much fever is usually present in many cases as a result of the inflammation and swelling of the joints. The subsidence of the swelling and inflammation from one joint as another one (or more) is attacked is a very noticeable feature of its action.

If an opportunity is given for the early treatment of a severe case of acute articular rheumatism, the only remedy that will be prescribed for several days will be the salicylate of sodium, and only that given which is made from the vegetable oil of wintergreen. When the temperature is high, the pain intense, and the case in the beginning stage, the action of this remedy (uncombined, to insure certainty of its action) is very pronounced. The pain at once lessens, the high temperature subsides, and all acute symptoms are markedly ameliorated.

Large doses should be given in the beginning, grs. xx every two hours for four or five doses, then the interval can be lengthened to three or four hours according to results obtained.

With the vegetable oil of wintergreen excellent results can be obtained in the acute stage. Twenty drops are given every two hours until the ringing in the ears is pronounced, then the dose is lessened.

The salicylates are not easy of administration, on account of their taste and a tendency to cause disagreeable stomach sensations, but can be given as prescribed in the following formula with no ill effects in the majority of cases.

℞ Sodium salicylate (vegetable), ℥i;
Compound infusion gen., q.s. ad ℥iii.—M.

S. Teaspoonful in water every two hours for four doses, then every three hours until all is taken.

Ammonium chloride or aromatic spirits of ammonia or one of the mintwaters can be given with the salicylates, but on no account should any of the alkaline salts of potassium or sodium be a part of the prescription.

From four to eight grains of acetanilid given three times a day between the doses of the salicylate will act very markedly towards relieving the pain in many cases, and seem to shorten the dura-

tion and lessen the severity of the disease. It is best to select cases in which there are no heart complications or weakness. The sthenic circulation present in the majority of cases is an indication for acetanilid.

Phenacetin is very useful for the same purpose for which acetanilid is prescribed. It is probably less depressing, but its analgesic action is also less pronounced and the duration of the early symptoms is not as markedly shortened.

I have frequently added the fluid extract of cimicifuga to the above formula with the effect of preventing heart complications. Ten drops are given with each dose. The action of this drug may not be a specific one in this direction, but, nevertheless, the cases having cardiac complications that I have treated have been very small in number as compared with those where this drug has been left out of their treatment.

A number of authors speak of the beneficial effects of perfect rest in bed. Many think that in the majority of instances cardiac complications will be completely avoided by strictly observing this important measure for a time after complete subsidence of all acute symptoms.

I have noticed that the salicylate treatment will give much better results if the room is kept reason-

ably cool and the covering on the patient is of a light character. If the patient becomes very warm, sweating will follow, and during this period the action of the salicylates is not very pronounced.

My favorite prescription for external application to the inflamed joints is the following:

℞ Ichthyol,
Oil of gaultheria (veg.),
Alcohol,
Glycerin, āā ℥i..

Mix the oil and alcohol and add the glycerin and ichthyol.

To this prescription tincture of opium can be added if the pain be excessive, or any other sedative or evaporating agent that one considers necessary.

If the pain and temperature subside in a few days, the interval between the doses of the salicylate can be lengthened to every six hours and the following drugs used between these doses: the iodides of ammonium, iron or arsenic, or nux vomica, cod-liver oil, etc., either alone or in combination, as the indications present might suggest.

The Diet.—No food of a nitrogenous character should be given to the patient until convalescence has become thoroughly established. The early diet should consist of milk, either alone or alternated with a cup of oatmeal or barley gruel.

Relapses.—If a relapse occurs after this form of treatment, it will be on account of our inability to keep the patient in bed. If no complications occur, the patient may be feeling fairly comfortable at the end of two weeks and refuse to remain longer under cover, and, as a consequence, is soon travelling the same road that he first explored.

A treatment which is quite late has given me excellent results in several cases of acute rheumatism. For the first forty-eight hours the patient is given the next formula and then the one following that is prescribed for a short time, after which both prescriptions are given alternately, medicine being administered every two hours.

℞ Aspirin, ℥ss;
Acetanilid, ℥i.—M.
Make into xxiv powders.
S. One every two hours.

℞ Potassium bicarb., ℥ii;
Fluid ex. liquorice, ℥ii;
Spearmint water, q.s. ad ℥iii.—M.
S. Teaspoonful in a half-glass of water every other hour for two days, then every four hours.

With this treatment, as in the first method described, the proper tonics, chalybeates, stimulants,

or alteratives are prescribed when indicated, which will not be until the acute symptoms have subsided. It is claimed that aspirin gives all the therapeutic qualities of the salicylate of soda and has a much less depressing effect; also that relapses and heart complications are less liable to follow its administration.

The benzoate of soda in doses of fifteen grains every two hours has a very decided action on the symptoms of acute rheumatism and should always be prescribed when the salicylates are contraindicated. There are a class of patients the condition of whose stomachs is such that salicylic acid or its salts cannot be tolerated. In such cases this remedy seems to take their place in an admirable manner.

CHRONIC RHEUMATISM

This affection has no strictly definite cause. It may follow a subacute attack of arthritis or may develop in an insidious manner. Malnutrition and exposure are supposed to be the principal factors in its causation.

The symptoms are loss of free mobility, considerable pain, and some swelling, especially during the exacerbations which frequently occur during changes in the weather. The intensity of the inflammation is hardly ever sufficient to produce any degree of

redness such as is noticed around the joints in the acute form.

Treatment.—The salicylates are beneficial during the exacerbations that occur, but at other times no results can be gotten from this form of treatment.

The following formula, although an old prescription, is a very good one to prescribe in many cases:

℞ Arsenic. pulv., gr. ii;
Potassii bitart., ℥i;
Pulv. rhei, ʒii;
Guaiaci resinæ, ʒi;
Mellis despum., ℔ i;
Myristicam pulv., ʒi.—M.
Ft. electuarium.

S. Take about one tablespoonful three times a day, more or less being used as its action on the bowels would indicate.

The following is also a good alterative prescription:

℞ Pulv. resin. guaiac.,
Potassii iodidi, āa ʒi;
Tr. colchici seminis, ʒiii;
Aquæ cinnamomi,
Syrupi, āā q.s. ad ℥vi.—M.

S. A dessertspoonful thrice daily.

Medicines are very valuable agents during some stages of this disease, and the chalybeates, tonics, etc., should be carefully considered, but especial stress should be given to Turkish baths and to diet.

The bath can be taken in the same manner as that prescribed under muscular rheumatism. This gives positive relief in many chronic cases together with the other measures here prescribed.

The Diet.—There are many conditions which may cause an arthritis, such as new growths, traumatism, tuberculosis, pyæmia, uric acid, and possibly rheumactic bacteria or lactic acid.

While some one of these agents may have been the cause of the arthritis, it has been several times demonstrated that urates have been present in the joints of persons afflicted with chronic rheumatism, clinically so called, and rheumatoid arthritis resembles rheumatism by being affected by the same changes, —namely, cold, fatigue, moisture, etc. Anæmia is a constant symptom in both rheumatism and gout, and malnutrition and great debility are present in all chronic forms. So it may be possible that uric acid and the urates are responsible for all of the symptoms occurring in chronic rheumatism. If this is true, the prevention of their formation will be the essential feature of the treatment.

All animal nitrogenous foods, both liquid and solid, contain a large amount of uric acid. Xanthin, a white crystalline compound, is constantly present in the urine, blood, and secretions of animals, and this agent is similar in action to uric acid.

The diet should receive careful consideration and every particle of food eliminated of an animal character. This should be replaced by milk, cheese, whole wheat bread, corn, and all kinds of vegetables, beans and peas being especially desirable. An egg can be occasionally allowed. This class of patients should never eat animal foods, even when apparently free from symptoms.

By the use of dry air at a high temperature, —"several hundred degrees F.," — good results are obtained. The affected part is wrapped in thick towelling and placed in an oven, which is made in a variety of shapes to fit the different parts of the body. The thick towels make it possible to subject the part to a very high temperature, to which factor are due the good results that follow.

This treatment is given from three to six times a week, or as the severity of the symptoms or general condition of the patient demands.

In chronic rheumatism the galvanic current should always be employed. The positive pole should be placed over the spine at the points where the nerves are given off that supply the affected part, and with the negative electrode begin below the part affected and give labile applications upward.

Then pass the current directly through the joint or part in all directions.

Soreness will sometimes be present after the affected part has apparently returned to its normal condition, and this form of treatment will not cause it to disappear. When this happens, several treatments with static electricity will give pronounced relief in almost all cases. The direct spark is to be employed.

FORMULÆ

The following are a few of the best formulæ in use for the treatment of different forms of rheumatism:

℞ Compound ex. colocynth, gr. iss;
Ex. colchicum root, gr. i;
Ex. hyoscyamus, gr. ½;
Calomel, gr. ½.—M.
Make into one capsule.

S. One four times a day in gout and chronic rheumatism or where an alterative, sedative, or purgative is indicated.

℞ Quinine sulph., gr. i;
Ex. colchicum root, gr. i;
Comp. ex. colocynth, gr. ss;
Ex. hyoscyamus, gr. ¼;
Powd. opium, gr. ¼;
Mass of mercury, gr. i.—M.
Make into one tablet or capsule.

S. One four times a day until laxative action is obtained.

℞ Manaca, gr. x;
Sodium salicylate, gr. viii;
Potassium salicylate, gr. iv;
Lithium salicylate, gr. i.—M.

S. Equals one dose.

To be given in acute or subacute rheumatism.

This formula seems to act better in many cases than either of the remedies prescribed alone.

℞ Lithium salicylate, gr. v;
Macrotin, gr. ½;
Phytolaccin, gr. ½;
Colchicine, gr. 1/15.—M.

Equals one dose.

S. One every two hours in acute or subacute rheumatism or during exacerbations of the chronic form.

Sometimes excellent results can be gotten from the long-continued use of the above formula by continued administration in chronic cases.

℞ Sodium salicylate, gr. v;
Ext. colchicum root, gr. ss;
Ext. phytolacca, gr. ss;
Potassium iodide, gr. i.—M.

Equals one dose.

S. One dose every two hours in subacute rheumatism.

℞ Rhus tox. (Norwood's Tr.), gtt. v;
Aquæ, ℥iv.—M.

Teaspoonful every two hours.

S. Sometimes acts very beneficially in the tendinous form of rheumatism.

℞ Tr. aconite,
Tr. belladon.,
Tr. colchicum seed,
Tr. cimicifuga, āā ʒii.—M.
S. Four drops every two hours in sciatica.

I would earnestly advise that all of the above formulæ be made up and kept in stock by all physicians who are treating or who are contemplating the management of rheumatic cases, and to make a close study of the action of the individual drugs which are used to make the various combinations.

SCIATICA

The reddened and swelled condition exhibited by the nerve at the time of post-mortem or when the operation of stretching is being done shows that the inflammation is of an interstitial character.

The supposed causes are exposure to cold and damp weather, compression from surrounding enlargements, and extension of inflammation from contiguous structures. Hemorrhoids, anal fistulæ, hip-joint disease, etc., may be causes. Rheumatism and gout are possible causes.

The most pronounced symptom is pain, which may have a sudden and severe beginning, but usually begins in a gradual manner. This pain is more pronounced in spots along the course of the nerve and is intensified when pressure is exerted at these points.

Remissions occur in the course of the disease and relapses are common.

It is important that a diagnosis be made and the cause located if possible, for one's success in treating sciatica will necessitate the locating of the factors which produce the disease, a removal of which brings about a surprisingly rapid cure in many cases.

The rectum should be explored for suppurating or inflammatory areas, the hip-joint receive careful consideration, and the sacro-iliac region be thoroughly examined, for severe pain in the thigh is many times a pronounced symptom of disease in that region.

Treatment.—The treatment of sciatica is in many instances the treatment of its cause, unless it has been present for some time, in which case the interstitial inflammation which has been produced will many times resist the action of all measures as far as a permanency of cure is concerned. Rheumatism, gout, syphilis, and all constitutional abnormalities should receive appropriate curative measures.

The patient should be confined to bed, with the limb wrapped in heavy, coarse towelling and surrounded with hot-water bags or sacks filled with hot corn or beans for several days. The heat should be constant and as great as can be comfortably borne. In connection with this treatment, fly blisters along the course of the nerve will be a very helpful factor in relieving the pain. Injection of boiled water into the nerve will relieve the pain.

Fixation of the limb in an elevated position for a long time is sometimes necessary and many times gives excellent results. Dry and wet massage are important and should be given daily.

The following formula given hypodermically has cured many cases which would not respond to the action of the iodides, salol, salicylates, etc:

℞ Nitroglycerin, gr. $\frac{1}{100}$;
Strychnine, gr. $\frac{1}{60}$;
Boiled water, q.s.—M.

Inject this amount three times a day, the glonoin being gradually increased until one-twenty-fifth of a grain is given at a dose. The head symptoms from this remedy can be controlled by the bromide of sodium with no diminution in the efficacy of its therapeutic power.

Pressure of the sciatic nerves at the point of their emergence in the great sacrosciatic notch for a half-minute, twice a day at intervals of a half-hour, is a measure of pronounced value. This should be done with as much force as can be borne, which will be considerable after the first few treatments.

This should be kept up for several weeks.

HAY FEVER

I HAVE had the pleasure of getting ideas on the treatment of hay fever from several doctors who make a specialty of treating this condition, and have had numerous cases to handle in my own practice which have been decidedly interesting to me from a therapeutic standpoint. So I will add the results of my study of the condition to this book and trust that it may be the means of giving some relief to some of the unfortunate sufferers.

This condition has a variety of names,—hay fever, hay asthma, autumnal catarrh, rose cold, coryza vasomotoria periodica, etc.

The causes are several,—*e. g.*, pathological conditions of the nasal chambers, diseased or irritable conditions of the nerve-centres, and the presence of external irritants.

The first are hypertrophies, ethmoiditis, inflammatory areas, exostoses, deviated septum, and many times the inferior turbinated bones seem to be placed too high from the floor of the nostrils, thus allowing the more easy entrance of irritant substances.

Touching one of the inflammatory areas with a

probe or some decided irritating substance will set up an attack of hay asthma, which will last an hour or more in many cases at any time.

The symptoms are an excessive lachrymation, conjunctivitis, asthmatic spells, neuralgic headache, and generally a hacking cough and a pronounced feeling of indisposition.

The treatment of each case will necessarily be different, depending on the cause and the stage at which the disease has arrived.

If hypertrophies, exostosis, or a deviated septum be present, they should be treated surgically in the interval between the attacks.

The inflammatory areas should be cauterized with the flat side of the galvanocautery blade, the burn being a superficial one, but deep enough to destroy the vessels under the area.

If external irritants be the cause, a fine sponge should be worn over the nose or placed in each nostril.

Sometimes a uric acid diathesis is present, in which case the following prescription will act in a very agreeable manner:

℞ Lithium salicylate,
Potassium cit., āā ʒii;
Water, q.s. ad ℥ii.—M.

S. Teaspoonful in water every two hours.

If a tonic is indicated, the following acts well in the majority of cases that have run for some time:

℞ Fowler's solution of arsenic, ℥ii;
Syrup of the hypophosphites, q.s. ad ℨiii.—M.
S. Teaspoonful diluted after meals and at bedtime.

To control the coryza, asthmatic conditions, and hypersensitiveness present, the writer has always had pronounced results from the following prescription:

℞ Fld. ex. gelsemium, ℥ii;
Atropia sulph., grs. $\frac{1}{100}$;
Sodium bromide, ℨi;
Syrup,
Water, āā q.s. ad ℨiii.—M.
S. Teaspoonful every two hours until eyelids are affected or the action of the bromide is pronounced.

The gelsemium acts almost specifically on the asthmatic condition. It also depresses the sensibility and lessens the exalted nerve functions which are always present to a marked degree. We cannot do without this drug in this disease, to overcome the above-mentioned conditions, but its action should be watched, and when eyelid symptoms or muscular depression are produced the drug should be left out of the prescription or its dose lessened in size.

If the patient can be treated for a few weeks before the expected attack, the compound stearate

of zinc should be applied all over the nasal mucous membrane with a powder-blower several times a day, and the patient's general health given careful attention and all abnormalities removed, for many times the cause is a reflex one. The stearate of zinc combined with a small amount of powdered cocaine gives wonderful results in some cases during the attack, but it, like cocaine solutions, should not be constantly employed.

Antipyrin intensifies and lengthens the action of cocaine, and can be used in combination with the two drugs mentioned above, or it and the antipyrin may be used in combination and in solution as a spray. The following is a good formula:

℞ Cocaine hydrochl., gr. xx;
Antipyrin, gr. xxx;
Fld. ex. hamamelis, ℥ss;
Water, q.s. ad ℥i.—M.

S. Spray a small amount when symptoms are severe.

The best local agent for constant use is a solution of adrenalin chloride. This is diluted—one to four of normal salt solution—and sprayed every hour or two over the mucous membrane of the nose. The strength is increased if the weaker solution fails to give results. It may be necessary to employ it in full strength in some cases.

The extract of the suprarenal capsule can be given internally with apparent good results, the administration beginning some weeks before the expected attack if possible.

The zinc stearate can be snuffed or blown into the nose during the entire course of the disease with benefit, using it alternately with the adrenalin solution.

With all the treatment it may be necessary for many patients to move to a mountainous country or the sea-shore until after the first frost.

DISEASES OF WOMEN

The treatment of the diseases of the sexual organs of women has for many years been a leading factor in the practice of the physician and surgeon, and, owing to a constant prevalence of these pathological conditions in all communities, the specialist in this line is much sought after by the afflicted ones who are courageous enough to begin treatment with a physician.

Thousands of women are suffering from some chronic pathological condition of the sexual system who could be easily cured by scientific treatment, but go through life enduring the pains and weaknesses resulting from their disease rather than make known their condition to any one. The sensitive woman is reluctant to place herself under the treatment of even her family physician from a false sense of modesty, and if she is questioned concerning the condition of the sexual organs she conceals the disease rather than have him know of it or subject her to the exposure necessary for an examination.

It is the duty of every physician to educate, as far as possible, every woman with whom he comes in contact professionally to the belief that her sexual

system should be examined and treated in as scientific a manner as any other part of the body when ailing. The patients who belong to this class are the ones who are enriching the proprietors of the establishments that are manufacturing such compounds as Viavi treatment and similar nostrums.

The condition of the sexual system of every female patient should be questioned whenever she seeks medication for any condition where it is possible that there is an affection of those organs, even though the symptoms point in the opposite direction. Many times a hap-hazard, careless examination is the only reason why results are not gotten with treatment of patients who are perfectly willing to go to any extreme to be brought back to health. The doctor who prescribes Micajah's uterine wafers for leucorrhœa or a feeling of weight in the pelvis, without first giving the patient a thorough examination and also having a knowledge of the composition of the wafers, deserves to lose his patients to the women medicine venders who go from house to house extolling the virtues of such compounds.

But, nevertheless, this class of treatment is sometimes necessary, and it is well for the physician to have a knowledge of these remedies, for many times he can use them to a marked advantage in his practice. He can at least subject his patients to a rigor-

ous course of medicinal treatment before recommending major measures.

The purpose of this article is to emphasize the use of a line of treatment that will bring about a cure of many conditions and diseases for which hundreds of patients are being operated every day. Operation is all right in its place and when necessary should be done at once, but we are all aware that many people have the uterus and its appendages removed to get rid of a few minor symptoms where proper treatment along a medical line would have given wonderful results.

The conditions from which this class of patients suffer are dysmenorrhœa, menorrhagia, leucorrhœa, vaginitis, endometritis, ulceration, bearing-down pains in pelvis, bladder irritation, and sensations of all descriptions in the region of the uterus and ovaries.

Many times any one of these conditions can be effectually remedied, if the cause be a simple one, by the use of extra-uterine and intra-uterine applications of remedies having astringent, sedative, antiseptic, and absorbent action. The nostrums so extensively advertised to relieve womankind of all the above-mentioned diseases and conditions are made up of just such remedies, and it is a fact that many people report complete relief from what they claim

was a very serious state of ill-health by the use of uterine wafers and other forms of medicament by which the patient can give self-treatment.

An advertising specialist told the writer that he had used the following formula to treat all the female patients who applied to him for relief and in the majority of cases without any other form of treatment, and that he got remarkable results from this tablet alone in ninety per cent. of all cases treated by him.

℞ Zinc sulph., gr. xlviii;
Boracic acid, ʒiss;
Solid ex. of thuja,
Solid ex. of hyoscyamus,
Solid ex. of hydrastis,
Solid ex. of hamamelis,
Solid ex. of belladonna, āā gr. xv;
Powd. jequirity, gr. v;
Solid ex. of calendula, gr. xx;
Elaterium, gr. iii.—M.
Make 24 tablets or suppositories.

The specialist claims to get as much absorbent action from the elaterium as can be secured from the use of glycerin and ichthyol on cotton, or at any rate all that is desired.

The writer has been using these tablets for a couple of years, and can say that many pathological conditions can be rapidly corrected by their use, and

in many instances the results will exceed what is expected from a study of the action of the different drugs which make up the formula.

The following formula is equally serviceable in cases requiring anodyne, astringent, absorbent, alterative, antiphlogistic, and contractile action:

℞ Ichthyol, 3i;
Belladonna, gr. vi;
Resorcin, gr. xx;
Zinc sulph., gr. xxiv;
Glycerin, ℥ss;
Gelatin, q.s. for 12 suppositories.

Method of Treating.—At bedtime the patient should cleanse the vagina with a warm-water injection and insert one of the tablets or suppositories as far as possible; this is made to remain until dissolved. The next night the treatment is repeated, and this is kept up for several weeks or months as the case demands.

Intra-uterine treatment may be necessary or helpful, and a convenient method of giving such treatment is by the use of a bougie having an action somewhat similar to that obtained from the two formula given above.

Endometritis is cured more quickly by the use of intra-uterine medication. The most prominent

symptom of this condition is the oozing of mucus or pus in large quantities from the uterine canal.

The following is the formula of a bougie that will give excellent results when the above symptoms are present:

℞ Ichthyol, ʒss;
Belladonna, gr. iii;
Resorcin, gr. xii;
Hydrastis, gr. xx;
Elaterium, gr. i;
Argoid or protargol, gr. v;
Glycerin and gelatin, q.s. to make 12 bougies.

One of these is to be introduced into the uterus every third or fourth day until cured.

The best method of introduction is to use a metal tube with a wire plunger. The bougie is packed into the tube and the instrument introduced into the uterus. The bougie is then forced into the uterus by the pressure of the wire.

The above formula can also be put up in liquid form and deposited in the uterus in the same manner as the bougie is introduced, or a deep male urethral syringe or a rubber or metal catheter will answer as well when supplied with a proper plunger.

This is certainly an ideal treatment for certain conditions. The irritable condition of the uterus at the time of the menopause, causing many reflex symptoms,

can in the majority of instances be entirely relieved by a short course of the extra-uterine treatment, or when the intra-uterine medication is indicated it should be added to the other to insure rapid results.

In case there is much pain, the patient can use the extra-uterine treatment twice or three times a day and get proportional results in that direction.

The writer has treated several cases of hydrosalpinx with this form of medication, and can report excellent results in every case.

The formula given for extra-uterine medication is similar to almost all of the much-advertised remedies, such as Micajah's uterine wafers, Mrs. Veja's vigor tablets, Viavi medication, etc., with the exception that a box of cerate or unguent accompanies the patent preparations. This is to be rubbed in over the uterus and ovaries several times a day.

Internal Medication.—Almost all the remedies prescribed by the advertising specialist for internal medication have a formula similar to the following:

℞ Ex. viburnum prunifol.,
Ex. viburnum opul., āā gr. xx;
Ex. star-grass,
Ex. squaw vine,
Ex. helonias, āā gr. xii;
Caulophyllum, gr. vi.—M.
Make into 24 tablets.
S. One every three hours.

A common formula consists of black haw, hydrastis, Jamaica dogwood, and cinnamon.

LABOR MADE EASY

There are many nostrums on the market which the proprietors of the articles claim are a boon to the childbearing woman. They claim that two or three months of treatment will be necessary to bring the uterine system into such a condition that the best results will be obtained. A fee of five dollars per month is charged. "If a full course of treatment is taken, the time of the labor will not be one-third as long or difficult as if no medicine is taken," is the advertising language.

These remedies are composed of cimicifuga and blue cohosh, to be taken internally, and the abdomen and perineum are to be well rubbed twice a day with an ointment composed of a simple cerate or vaseline.

℞ Fld. ex. cimicifuga,
Fld. ex. caulophyllum, āā ℥i;
Simple syrup, q.s. ad ℥viii.—M.

S. Teaspoonful in water after meals and at bedtime.

The writer has given the above formula to many patients, and numerous first-labor cases have lasted but a few hours when the remedy has been taken for five or six weeks. I will not positively say that

the rapid results depended on the virtue of the remedy, as claimed by the nostrum venders, but in each case there seems to have been an improvement in the patient's health from the time the treatment was begun where that was at a low standard.

Massage of the abdomen and perineum may have a beneficial influence by strengthening the muscles so treated. Probably the exercise that the patient must take when she acts as her own masseuse is a factor in the production of the good that follows.

SEXUAL ANÆSTHESIA IN THE FEMALE

The sexual sense, like all others, is but an evolution or differentiation of common sensation, which is the basis of them all. The orgasm experienced in coitus is analogous to the sensation experienced in vigorous scratching to one troubled with severe itching. This sense is also likened to that of taste, which with some people sometimes almost reaches an orgasm.

It is the principle of evolution that functions, when disturbed by disease, decline or decay and disappear in the reverse order in which they develop. So it may happen that functional or organic diseases of the ovaries or uterus, wounds received during childbirth, spinal trouble, sexual excesses, changes which take place during pregnancy and

lactation and the menopause, may bring on a devolution of one's ability to experience sensations formerly noted during the sexual act.

It is also possible that the sexual instinct remains undeveloped in many women long after marriage has taken place, and, on account of precipitate or hasty emissions on the part of the husband, the wife is unable to experience a sense of gratification.

A common cause is an elongation or adherency of the prepuce of the clitoris. In many cases the extent of this condition is such that the organ is so thickly covered that direct friction is impossible. A correction of this condition gives surprising results in this class of cases.

In the past hundreds of articles and many books have been written on impotency and kindred disorders in the male, while little attention has been given to similar conditions in the opposite sex.

As seen from the variety of causes that may bring about sexual indifference or anæsthesia in the female, the treatment will be just as varied. The general health of the patient should receive close attention. Every bodily function should be considered and any pathological condition corrected. A close history of the case will at once tell the doctor about the class of treatment that will be necessary. Sometimes a good aphrodisiac will answer; again an endometritis

or some other inflammation of some part of the sexual system will need attention.

The routine treatment of the advertising specialist is to supply the patient with an ointment containing a mild irritant, such as powdered capsicum. The following is the usual formula:

℞ Powdered capsicum, gr. ii;
Boric acid, ʒii;
Lanolin, ʒi.—M.
S. Apply to clitoris several times a day.

Every patient is given a several weeks' supply of aphrodisiac tablets in connection with the ointment.

Several years ago I met an advertising specialist who claimed that to remove the foreskin from the clitoris would correct an anæsthetic condition of this organ and cause women who had been formerly indifferent concerning sexual matters to experience a high degree of satisfaction. He claimed to have treated hundreds of cases and that eighty-five per cent. of them had reported that pronounced benefit had been received.

The foreskin is previously anæsthetized with ethyl chloride or cocaine solution, all adhesions are broken up between the clitoris and the foreskin, and part of the foreskin is removed. It is probably best to make

a V-shaped incision. This denudes the entire clitoris. The mucous membrane and skin are now united on each side and at the apex in the same manner as the stitches are made in a circumcision and the wound is treated antiseptically for a few days.

To each one of these patients the ointment and aphrodisiac are prescribed for a month or so after the circumcision.

The routine charge of the specialist was from twenty-five to one hundred dollars. Many people will willingly pay almost any price for a relief from this condition.

I have performed this operation with pronounced benefit in several cases, and will unhesitatingly recommend that it be done when the indications spoken of above are present.

PATHOLOGICAL CONDITIONS WHICH AFFLICT WOMEN

I will begin this subject by giving a brief description of the different pathological conditions with which women are afflicted.

The life of a woman is divided into three stages,—first, until puberty is reached; second, from puberty until the menopause; third, from the menopause until death takes place.

The sexual life of women is between puberty and

the menopause. This is characterized by a bloody discharge, occurring about every twenty-eight days and lasting for from three to six days at each period. This is given the name of the catamenia. Many constitutional and local derangements will cause abnormal conditions, the treatment of which must necessarily be directed towards the etiological factors.

There are three anomalies of the menstrual function,—amenorrhœa, dysmenorrhœa, and menorrhagia.

AMENORRHŒA

This condition shows a scanty or total absence of the normal flow, and is due to defective development of the sexual organs. Catching cold produces a transitory amenorrhœa. Vicarious menstruation prevents the normal from taking place. Mechanical obstruction of the canal by pressure exerted by tumors, etc., while not being amenorrhœa proper, can be so classed. Anæmia, chlorosis, tuberculosis, and many severe fevers produce this condition. Mental strain, nervous disturbances, fright, grief, etc., are frequent causes.

Pregnancy and lactation produce a normal amenorrhœa.

If all the possible causes are carefully considered, no obstacle will be encountered in the making of a rapid diagnosis.

The treatment consists in the restoration of normal nutrition by the use of tonics, diet, exercise, rest, massage, electricity, or any other measure which seems to be indicated. When the suppression is due to catching cold, it should be remedied by some doses of aconite and quinine and hot baths. The emmenagogues should not be given at this time.

MENORRHAGIA AND METRORRHAGIA

The first is an excessive flow at the time of menstruation. If it is present at other times, it is given the name of metrorrhagia. Both of these conditions are merely symptoms of some local or general pathological condition.

The following is a list of the principal causes: Fibroid and other tumors, cardiac diseases, malaria and other fevers, Bright's disease, tuberculosis, purpura, inflammatory conditions of the uterus and appendages, flexions, versions, adhesions, retained pieces of placenta and adherent secundines after births and abortions.

The source of the hemorrhage should always be questioned, for this can come from the vulva, the urethra, or the vagina. A careful examination may shorten the treatment.

The flow of each individual should be considered,

for what may be normal with one person will be excessive with another.

Treatment.—The first thing to do is to stop the hemorrhage and the next is to remove the cause. In cases of typhoid and tuberculosis, fibroids, etc., the bleeding should be checked at once and without waiting to remove the cause, or the weakness produced might result in the death of the patient.

The patient should be put to bed and the foot of this elevated six inches or more.

A prescription containing the following ingredients is the best to use during the excessive hemorrhage:

℞ Acid. sulphuric. dil., ℥ii;
Ex. ergot. fld., ℥i;
Aquæ cinnamomi,
Aquæ erigeron., āā ℥vi.—M.

S. Dessertspoonful in water every hour, as indicated.

This should not be used if pregnancy exist, as an abortion might be the result.

In metrorrhagia it is possible to bleed to death in a very short time. In these cases the uterine canal should be tamponed with gauze, after which, at the proper time, the cause of the hemorrhage should be removed.

DYSMENORRHŒA

Many women normally have some pain at the menstrual periods, but when nausea, vomiting, head-

If a galvanic current be passed through a nerve, an effect will be produced which we call electrotonus, and the nerve will be in an electrotonic state.

That part of a nerve which is in the neighborhood of the positive pole, or anode, and acted upon by it is said to be in an anelectrotonic state; and that part which is affected by the negative pole, or cathode, is said to be in the catelectrotonic state.

There is a point where the action of the currents becomes neutral and allows them to meet without changing the irritability. This point will be at different locations between the positions of the two poles, depending on the strength of the current used. If this be strong the neutral point will be near the cathode; if it be weak it will be near the anode, and if one of moderate strength be used the point will be midway between the two poles.

It is very important to remember that anelectrotonus decreases the irritability of the nerve and that catelectrotonus increases this condition. So, if the galvanic current were to be employed to relieve a spasmodic condition, it would be necessary to place the positive pole over the affected nerve. For the relief of painful nerve affections, the hyperæsthetic condition can many times be instantly considerably modified and the nerve irritability decreased by placing the anode over the affected nerve. To re-

lieve or favorably influence a condition of the nerves where the irritability is decreased, the negative pole is placed over the affected part. A sample of these conditions is furnished by several forms of paralysis.

When it is necessary to get the above-mentioned effects by the use of galvanism, the current must be constant. The strength of the current should be gradually raised to the desired height and as gradually lowered without interruption, for the instant this happens the effect that is being produced at the positive pole becomes transferred to the negative and the latter to the positive, so, to keep from undoing all the good that has been done by the continuous action of the current, it must remain unbroken until gradually reduced to zero.

Painful conditions will not always be relieved by the application of the anode to the affected part. Relief occurs only where the nerve itself is affected, as in neuralgic conditions.

In rheumatic conditions it is necessary to produce a catelectrotonus, which the cause or conditions present in this disease would indicate. In some forms of sciatic rheumatism the application of the anode to the sciatic nerve gives relief.

So it is evident that the cause of the painful affection must be carefully considered, or the symptoms

will be aggravated if the wrong pole is placed over the nerve.

In making applications to the sciatic nerves of the female, it is necessary to place one pole over the nerve in the vagina, and if an inflammation of the uterus and appendages is the largest factor in the production of pain the sedative effect of the anode is desirable.

If a mild galvanic current flow through a motor nerve, no contraction of the muscle supplied by the nerve will result at any time; but if a strong current be at once applied, a single contraction of the muscle will follow, after which this will cease until the current is broken, when if still sufficiently strong a repetition of the contraction will result, certain conditions being present.

FARADIC ELECTRICITY

The stimulation of a motor nerve is brought about by the change of density. If this be suddenly brought about, a maximum effect is produced. The interrupted current of the faradic battery is a sample of this action, the sudden change of the density coming with each interruption.

If a slowly vibrating rheotome be employed, muscle contractions will occur with each vibration at the opening of the circuit. The opening of the

faradic current acts exactly the same as the closing of the galvanic.

Rapid interruptions will not cause contractions of the muscles, as do the slow ones, for one follows the other in such rapid succession that this cannot take place. The contraction is constant.

In this the faradic differs from the galvanic, the latter not remaining contracted during the passage of the current.

The amount of contraction will depend on the strength of the current used for the change of density when the galvanic is employed, and also the method of interrupting the current. If a metallic interrupter be used or if this be placed in the handle of the electrode, the suddenness of the interruptions will be more pronounced.

Any physician who treats general diseases by the use of electricity must make a close study of the motor points. This can be done by studying charts, but the best method by far is to practise on himself. He can then note the exact point of entrance of the nerve into the muscle. The electrode which is employed over the nerve should be small, and a larger one used over some other part of the body.

The contractions will be stronger or weaker or not present at all, depending on the pole which is used

over the motor point and whether the current is opened or closed.

The following are the abbreviations which represent the different opening and closing contractions made with the galvanic current.

Ca. Cl. C. Cathodal closing; cathode over motor point and the current closed.

(This is much stronger than at any other closing or opening.)

An. Cl. C. Anodal closing contraction; anode over point and current closed.

An. O. C. Anode over point and current open.

Ca. O. C. Cathode over point and current open.

The Ca. Cl. C. is stronger than the others, next in strength is the An. Cl. C., next is the An. O. C., and the weakest is the Ca. O. C.

In health, on account of the weakness of the current, it is difficult to produce a contraction with the Ca. O. C.

With Ca. Cl. C. contraction will be caused, but this will not occur when the other openings or closings are employed if the current be only sufficiently strong to produce the contraction at Ca. Cl. C. Now, if the strength be increased a few cells, this contraction will be stronger and it can also be demonstrated at An. Cl. C. These two become intensified by the addition of other cells, and at An. O. C. the contrac-

tion can be produced. By still more being added it can also be noticed at Ca. O. C.

The peroneal nerve is the one upon which electrotherapeutists usually demonstrate these important points.

The usual difference in the number of milliamperes necessary to bring about slight contractions is as 6–12–28, and may be a less quantity in the majority of cases, as 4–10–24.

To produce strong contractions the rule is 20–40–48, at the first three closings and openings listed.

These rules should be committed to memory.

These are the proportions which usually occur in health, and wide deviations are present in some diseased conditions, which is of material aid in making diagnoses and in giving a prognosis.

Where paralysis is present and due to spinal disease, the strongest contractions will be caused by the Ca. Cl. C. The cathode produces no pain when the opening is made.

If a motor nerve is subjected to electricity, all the muscles supplied by it will contract in health. A number of muscles are supplied by more than one motor nerve and as a consequence have more than one motor point, making it impossible to cause contraction of the whole muscle at the same time.

If applications are made direct to the muscle with

both poles, the contractions will be less pronounced than through the nerves.

The patient should relax the muscles while being subjected to electricity, for the contractions will be stronger; and in diseased conditions, if the patient exerts a mental influence in the direction of the contraction and wills that this take place, after repeated trials such mental effort will be of much assistance in bringing about the desired result. This fact has been frequently demonstrated by the writer.

The contractions noticed when involuntary muscles are subjected to the galvanic current are slower in action, but are continuous, and to some extent after the current is broken, which is the opposite of its action on voluntary muscles. The peristaltic action of the intestines can be produced by this procedure.

Stimulation of a sensory nerve can be produced by the continuous flow of the galvanic or faradic current.

With the weaker galvanic current a more pronounced sensation is felt at the first three points given above in the table of normal contractions than is produced with the continuous flow.

The electrotonic effect of the anode on the nerves of the skin decreases the irritability. It is for this reason that when the anode is employed as the skin electrode a much stronger current can be borne.

The sensation noticed during an electrical *séance* is from a pricking to a burning one, depending on the strength of the current.

Nutrition is affected by electricity in a variety of ways. The current has a chemical action which will decompose the fluids within its range. The hydrogen and acids within range of action are transported to the positive pole and the oxygen and alkalies to the negative. Medicinal substances can be transferred from the positive to the negative pole, and this proved by chemical tests of the deposit on the latter.

It is in this manner that abnormal collections of fluids, as in cystic tumors, can be dispersed by the use of the galvanic current.

The weaker electrical currents affect nutrition by increasing the supply of the nutritive fluids to the parts treated, and the stronger currents exert a beneficial influence by the amount of increased blood-supply that results from the muscular contractions produced, as in muscular exercise.

In making an electrical diagnosis the table of normal contractions will be changed in diseased conditions of the motor nerves.

In cases with morbid excitability of nerves a weaker current will produce the same strength of contraction as a strong one during health, and just

the opposite will be noticed if a diminution of the irritability be present.

In many conditions the manner of contracting will deviate from the normal and the rule for normal cases will be changed. Number two or number three may be more strong than the Ca. Cl. C., or the proportions may be lengthened or lessened as compared with those given in the rule.

The changes of nerve reactions may be rapid, as in anterior poliomyelitis or traumatism of peripheral nerves, where complete loss occurs at the end of a few weeks. In chronic affections this may extend over a course of several years.

The muscles lose faradic irritability later than the nerves, and the muscle can be stimulated with the galvanic current when this irritability has been entirely lost in the nerve and pronounced changes have already taken place in the muscle. In acute affections this irritability is usually increased for some time, and in chronic ones a gradual diminution is noticed.

The above pages have been written to give the reader an understanding of the action of the electrical currents in health and disease and enable him to apply this form of treatment methodically, for in this manner alone can results be obtained.

Deficient lactation can be increased in many in-

stances by the passage of a strong faradic current through the breasts for from ten to fifteen minutes each day for two or three weeks. General faradization should be given at the same time.

The death of the fœtus in extra-uterine pregnancy can be brought about by introducing the negative electrode armed with sponge into the vagina or rectum to the nearest point contiguous with the location of the fœtus, and with the positive pole on the abdomen over the impregnated tube administering the interrupted galvanic current daily until a softening of the mass is noted, which will be the symptom to show that the death has resulted.

Functional diseases of the sexual organs of women are treated with more satisfactory results, on account of rapidity of effects noticed, than are those of an organic nature.

In many conditions the electrodes give all the action that is necessary when they are placed over the pubis and the perineum, but in some conditions it may be necessary to employ intra-uterine and vaginal electrodes.

In amenorrhœa the negative pole should be introduced into the uterine canal and the positive placed over the abdomen. Faradization will give results similarly employed.

In dysmenorrhœa of the obstructive or mem-

branous type the negative pole should be introduced into the uterus and with the positive over the abdomen a strong current should be passed, from thirty to one hundred milliamperes. The galvanofaradic current has usually a more beneficial action than either employed alone.

If deficient or latent menstruation due to non-development be the condition and symptoms be present showing that an effort is being made by the sexual organs to establish this function, material assistance can be given by the use of the faradic or the galvanofaradic current, administered from the two external points mentioned above or by introducing one electrode into the uterine canal and placing the other on the abdomen.

Subinvolution of the uterus may be corrected by the use of faradism. The double electrode is employed in the uterine cavity in such a manner that one pole will touch the fundus and the other be in the cervical canal or at the os. The treatments should be given from two to four times each week.

In the treatment of fibroids and chronic metritis a platinum electrode attached to the positive pole is introduced into the cavity of the uterus, a large sponge electrode is placed over the abdomen, and the galvanic current is administered. In this manner a

contracted dry eschar is produced which is highly beneficial in hemorrhage and uterine leucorrhœa.

In endometritis the negative electrode should be used in the uterus if no hemorrhage be present.

In uterine leucorrhœa the positive pole should be used.

In subacute periuterine inflammations the pain can be lessened by the application of the faradic current, beginning with a very mild current. As the condition becomes chronic and the pain subsides the galvanic current should be used with the positive pole in the uterus.

Inflammatory deposits are more easily removed with the negative electrode, for reasons given above.

In treating fibroid tumors the current should be very strong, about two hundred milliamperes, that strength being gradually reached and as gradually reduced. Treatments last from seven to twelve minutes.

Stenosis of the cervical canal can be more rapidly dilated by the application of a galvanic current to the sound which is introduced into the uterine canal.

Electricity should not be applied to acutely inflamed organs or to a pyosalpinx.

The immediate effect of intra-uterine galvanization is not very pleasant, and the patient should be so informed when treatments are to be given. It is

only after several treatments have been given that improvement can be noticed in most cases.

The long wire is the one used to subdue pain when the faradic battery is employed. Ovaralgia, abdominal pain in hysterical persons, and vaginismus are the class of conditions relieved by this form of electricity.

STATIC ELECTRICITY

The methods of the administration of static electricity are very numerous and require considerable study on the part of the operator. The strength and length of the spark can be considerably modified by the rapidity of the revolving plates and the distance apart of the connecting rods of the machine. The size of the ball electrode has much to do with the strength of the spark, the large brass one giving the strongest. The resistance in the circuit also modifies the length and severity of the spark.

Shocking the patient should be avoided, especially if he or she be of an hysterical tendency. Employment of the ring electrode will prevent this.

There are several methods of giving the electric current, and a study of each patient will show when the employment of certain ones is indicated. The following are the different methods that are employed to administer this form of electricity: the direct and indirect spark, insulation, breeze, electro-

massage, the induction current, spray, wave current, Leyden-jar current, and brush discharge.

The indirect spark is administered by an insulated platform being connected with one pole of the battery and the other pole is grounded. Before starting the battery the sliding poles should be widely separated. Insulation of the current on the platform is usually enough to produce all the spark that the ordinary patient can endure, the prime conductor not being necessary. The grounded electrode should always be used unless contraindicated by certain conditions, as anæsthesia. The spark will be stronger if the patient be negatively insulated. The effect produced by the positive spark is more mild and of a less penetrating nature than the negative.

The strong spark should not be given over bony prominences. The size and length of the spark to be employed is determined by the chronicity of the disease and the depth of the diseased organ to be treated.

When impaired sensation is to be treated, the large ball electrode gives the best results.

In treating lung diseases the mild spark should be employed. In diseased conditions expectoration seems to be somewhat increased, and in some cases prolonged treatment causes increased expansion. If while treating nerve and muscle pains the spark be

given while in the position which gives the most pain, a more pronounced relief will be experienced.

Sending strong sparks into painful joints is better treatment than any other form of static electricity. In treating locomotor ataxia the spark should be administered to the sole of the foot.

The spark has given good results in the treatment of the amenorrhœa of young girls or those ladies who refuse intravaginal and uterine galvanic treatment. The static spark is of more benefit externally than the faradic current.

Static Insulation.—The stool on which the patient sits is connected with one of the poles of the battery and is placed on an insulated platform. The opposite pole is connected with the ground and the bars are drawn widely apart. This draws off the electricity from this pole.

After the patient is charged with electricity it passes off so gradually that it is hardly noticeable, making this a very pleasant method of taking static electricity. No object should come near the patient, or an unpleasant shock will be the result. The hair, if dry, becomes deflected.

A slight warmth with a tendency towards perspiration is produced, and at the same time a quiet, soothing, pleasant sensation is experienced by the patient.

The higher voltage makes positive electrification more energetic than the negative, and when employed through heavy woollen clothing the negative breeze is somewhat irritating. This can be modified by removing this cause and lessening the resistance. I have noticed that it is not irritating when cotton clothing is worn or if the bare skin is treated.

With nervous people the positive breeze should be employed, on account of being less irritating.

If anæmia, neurasthenia, debilitated conditions, etc., be pronounced, static insulation will be of greater benefit than in cases that are nearer a healthy state. It is this class of cases that are more benefited by this method of treatment than any other.

Static Breeze.—This is produced by being thrown from a crown-shaped apparatus made of metal and the points towards the patient. The effect produced is as if there was an ordinary air breeze which had become mildly electrified.

The number of metallic points and surface covered by the electrode will control the density of the current. The speed of the revolving plates, the condition of the air and clothing, and the distance of the electrode from the patient will influence the energy of the current.

The breeze is quieting and bland when properly given.

The breeze can be applied to any part of the body by the use of the brush electrode. This can be manipulated in the hand of the physician.

The negative breeze should not be given through woollen clothing if the sedative action is desired, for the skin can in this manner be irritated to such an extent as to cause reddening or even blistering in a very few moments. If sedative effects are desired, it should be applied to the bare skin or through linen or cotton clothing.

Deeply-seated pains, as in the pelvis, abnormally cold hands and feet, and a sluggish circulation are many times favorably influenced by applying the negative breeze through some woollen fabric. This affects the tissues in a manner similar to the counter-irritating action of a plaster or other medicament used for that purpose.

By making an interruption between the prime conductor and the patient and increasing the action of the plates, the irritating effects of the breeze can be increased.

A thick head of hair may be the cause of producing effects similar to those which take place when the breeze is administered through woollen material, and in this manner be unbearable to the patient.

All metallic substances in the clothing of patients, such as corset stays, ornaments, etc., may be re-

sponsible for the production of disagreeable burning sensations if the negative breeze be employed.

Static Electromassage.—An insulated platform is not necessary to administer this form of static electricity. The patient is seated on a chair, with his feet on an ordinary foot-plate which is connected with one pole of the battery. The other pole is attached to the roller electrode. The connecting rods at the top are placed together and the machine is set in motion.

The roller is now applied to the part which is to receive treatment and the connecting rods are drawn apart. This should be done very gradually. A pricking sensation will be felt under the roller. The greater the distance between the connecting rods the stronger the current. When separating the rods, a twisting motion should be instituted, to prevent a sudden separation of them, for if this result some shock will be produced.

If it is desired that a very strong current be used, the Leyden jars can be brought into service.

Wave Current.—This is a one-pole current, and this has a high or low potentiality; its frequency is either great or small; it gives no pain and is under the complete control of the operator.

The patient is insulated and then repeatedly charged and discharged with the electrode from the

contact surface. This produces a double effect, both local and constitutional, of a single pole. The general system is treated in this manner and the above effect produced.

The tonic effect produced is quite marked and is greater in proportion as the spark gap is lengthened.

The effect of this method is the same as that produced by massage, but greater depths can be reached and as a consequence more rapid results produced.

The nutritive system is the one which this method influences to a great extent. Metabolism is stimulated, which favors improvement in many conditions where this important function is inactive.

Muscular relaxation is a very noticeable occurrence during these treatments. It is on this account that the relief of local pain can be brought about by lessening the amount of muscular spasm. Congested conditions can be relieved in the same manner, or at least lessened to some extent when severe cases are being treated.

Strips of pliable metal or moist electrodes are applied directly to the affected part, no clothing intervening. The positive pole should be grounded and the sliding poles be in contact. The patient can receive treatment over several spots at the same time by several connections being made with the machine. The spark gap and size of the metal electrodes will

determine the amount of effect produced over inflamed areas.

The treatment should begin in a mild manner; this can be done by moistening the electrodes and having the spark gap small. After continuing for a short time the gap can be lengthened. Best results are gotten by repeating this procedure several times during the treatment, which should last for from fifteen to twenty-five minutes. The stronger the current can be given without pain to the patient the better will be the results.

When the general wave current is being given, the shoes should be removed and the feet insulated with paper, before placing them on the plate. This will prevent the formation of sparks which cannot be tolerated.

In paralytic affections apply the metallic electrode to the spine over the origin of the nerves supplying the part. The spark gap should be large, but made so gradually.

In ovarian pains due to neuritis the metal electrode should be placed over the painful spot and the other over the nerve origin in the spine.

In all inflammatory conditions of the nerves or in neuralgias of a reflex nature the metallic electrode should be placed over the painful spots and also over the motor points of the nerves.

In sciatica one pole should be placed over the ankle and the other over the site of exit of the nerve at the sacrosciatic notch. The spark gap should be gradually opened until the patient's limit is reached. Intense vibrations are necessary to get results in this condition. If the electrode touch the motor points, very pronounced pain will result.

Asthmatic and other lung diseases are treated with the wave current by placing the metallic electrode over the chest and then over the spine. The treatments should extend over a period of twenty-five minutes.

The wave current is highly beneficial in a great many painful affections. The anginas, hepatic and renal affections of a painful nature, bone pains, and gastralgia, are at once modified to some extent.

Nerve energy, nutrition, secretion, and the circulation can be greatly stimulated by placing the ball electrode over the perineum and drawing the sliding rods just beyond tolerant doses and quickly returning the same.

The effects of a rapidly interrupted fine-coil current can be simulated by regulating the distance between the sliding rods, the manipulation of the electrode, the speed of the plate revolutions, and the contact duration. The good that results is the constricting effect produced on the muscular walls of the

blood-vessels exerted by this method of application. The local effects of this current can be secured over a small or large area.

The finer and more sedative effects are produced by the use of rapid interruptions. A highly stimulating effect is produced by powerful interruptions, rapidly repeated.

When there are painful affections of deep-seated fibrous structures, I have noticed very little difference in the beneficial action of the wave current and that of the spark. So also the local indications for sparks can be met by the application of the wave current and there will be no interference with the comfort of the patient.

The Spray.—There is no material difference between the action of this form of application and that of the breeze. The electrode is closer to the patient. Its therapeutic qualities are more pronounced, as is also the energy of the current. When concentrated and properly applied, a great variety of painful affections can be greatly modified. The quieting effects can be increased at will, as can also the irritating action.

To produce the former effect, the positive spray or breeze should be employed.

All forms of painful conditions can be relieved by the positive spray or breeze. This breeze also has an

antiphlogistic action which exerts a beneficial influence in painful swellings of joints. It also relieves the coryza in hay fever by drying the serous and suppurative secretions which are generally present.

The negative spray is also indicated in a great many conditions. Its action is that of a counter-irritant. In lung diseases, nerve affections, as neuritis or neuralgia, sensory disturbances, chronic torpidity of the liver or kidneys, and several circulatory disturbances, its action exerts a beneficial influence.

The patient can be negatively or positively insulated by grounding the indifferent pole.

Increased speed of the plates and interruption of the spray by bringing the electrode close to the body will increase its irritating effect. To produce this effect small sparks should mingle with the spray.

To avoid giving a spark when the spray is being given the point of the electrode should be constantly watched. Bony prominences and angles should be avoided, as a spark might be the result of contact with them.

The Friction Spark.—During excessive humidity of the weather, when it is impossible to employ the direct spark, the friction spark can be utilized. The patient may be insulated in either manner and the active pole grounded or used direct, as seems best. The electrode should be properly placed before start-

ing the machine, and a gradual separation of the poles should be instituted until a sufficient effect is brought about. The ball electrode is the one to be employed, a better effect being produced.

The negative spark is stronger than the positive.

Some fabric should intervene between the electrode and the patient. The ball can be covered with flannel or merely rubbed over the surface of the body which is covered with thin clothing. Minute sparks are the result of proper application of the electrode. They are generally about one-eighth inch long.

The tissues should be rapidly gone over when a large surface is to be covered. If small surfaces are to be treated, constant application should be avoided, on account of pain.

This form of application is capable of producing marked counterirritation, and can be employed whenever conditions are presented which call for this form of treatment.

The wooden-ball electrode is used more often in rheumatic conditions when the friction spark is employed than any other. It should be rapidly moved over the diseased surface during the treatment, which should extend over a period of fifteen minutes.

Reflex sensations and pains can many times be greatly modified by the application of the vigorous

friction spark over the point referred to by the patient as diseased.

The absorption of medicaments is hastened by the action of the friction spark on the capillary circulation.

The friction modifies the pain in all forms of liver, ovarian, and abdominal diseases of a chronic nature where this is present.

In paralysis and anæsthesias this is a remedy of material value; the extent of benefit is exceedingly marked in many cases.

During the change of life, unnatural symptoms can be favorably influenced by the use of the friction spark over the pelvis and cervical spine.

Leyden-jar Currents. — Pains resulting from wounds, especially if they be chronic, are sure to be favorably modified by these currents. All forms of rheumatism, gout, sciatica, the chronic catarrhal conditions of the nose and throat, and locomotor ataxia are beneficially influenced by this method of administering static electricity.

The electrodes should be applied and the sliding poles closed before the machine is set in motion. The poles should then be gradually drawn apart. When the spark is formed between the rods, it is accompanied by a contraction of the muscles to which the electrode is applied. A small sponge

electrode should always be employed and this saturated in an alkaline solution, preferably sodium bicarbonate.

The current sometimes causes pain when applied over a hairy spot. This can be corrected by lubricating the hair with oil.

The voltage of the positive pole is higher and the sensation produced is sharper than that of the negative.

HYGIENIC TREATMENT

This is a form of treatment which a few years ago was advertised to the physician as a new discovery. Its advocates claimed that it would effectually cure every disease known to humanity and act as a preservative to the health of the individual, enabling him to prolong his natural existence almost indefinitely, and all of this without one particle of medication.

The same treatment is now being extensively advertised to the laity. The patient pays several dollars for a booklet which gives the secret methods. Before the person can purchase a booklet he must pledge himself not to allow any person outside of his immediate relatives to come into possession of the method, but to instruct them to apply to the original source for the knowledge.

This form of treatment is carried out by the injection of from one to one and one-half gallons of water into the colon once each day. This is to be retained as long as possible, and when it comes away is sure to bring much poisonous material which would otherwise remain and be liable to cause disease or intensify the symptoms of any pathological con-

dition already present. The advertising advocates of this form of treatment claim that all diseases are caused by the absorption of the poisonous food products from the lower part of the intestinal canal, and that, if this be thoroughly irrigated once each day with sufficient warm water to produce an extensive distention of the colon, the collection of putrefying material will be impossible and a healthy condition of the system will naturally be the result of a short course of such treatment.

This form of treatment has been extensively criticised by many physicians and writers of note, while others of equal ability and reputation claim much for the method in many suitable conditions. The method of thoroughly washing out the large bowel is very simple, and in many cases an extremely efficient and suitable treatment for a variety of diseases having an impacted intestinal canal as a factor or total cause in their production.

The longitudinal and circular fibres which make up the coats of the large intestine are arranged in such a manner that a pouching or loculation is produced at regular intervals, which is liable to cause a deposit of hardened, scybalous fecal masses to take place, which in many cases resist the action of any laxative or injections which are given in the ordinary manner, and occupy the canal, acting as an

irritant, which action becomes more pronounced as additional deposit takes place. A constitutional disturbance or auto-intoxication is also caused by the absorption of the putrefactive products of the decomposition of a portion of these masses, as well as from other fecal matter the exit of which is retarded by these obstructions.

I have proved to my own satisfaction many times that this condition is capable of causing all kinds of abdominal symptoms, from those which simulate a slight catarrhal irritation to a very pronounced reflex disturbance.

In one instance I attended a patient in whose intestinal canal, near the cæcum, a large accumulation had formed, which at the time I instituted treatment had reached the size of a fetal head. In this case the man had been afflicted with a diarrhæa which had resisted all the treatment that had been brought to bear on the condition by a number of doctors for several months. It is certain that the accumulation must have been perforated to allow the exit of the fecal matter, the passage of which was almost constant.

The treatment of this case was begun by connecting the end of a long rectal tube to the nozzle of a bulbous or pressure syringe, and several quarts of soapy water were injected in the following manner.

The tube was introduced a few inches into the rectum and sufficient of the solution injected to produce a distention of that part of the canal. When this had taken place, the passage of the tube for some distance further became an easy matter. More of the solution was injected, when the passage became difficult, until the tube end was in the vicinity of the mass, at which point the obstruction was acted upon directly by the soapy water. Repeated injections were necessary to dissolve the mass, oil being finally substituted for the soap solution and this allowed to remain overnight. A complete dissolution of the mass finally resulted, and a rapid abatement of all the former disagreeable symptoms together with a very pronounced improvement in the patient's general health.

It would naturally be thought that morbid accumulations would more often take place in the vicinity of the cæcum than in the transverse or descending colon. The impaction of fæces occurs in the sigmoid flexure during life as readily as at the beginning of the large intestine, which if large is easily proved by palpation, and when small has been proved by the high rectal injection being made with the tube introduced but twelve to fifteen inches into the rectum, and also by being able to notice the foreign body as the tube is being introduced.

Displacement of contiguous organs and of the colon itself can take place to such an extent that the transverse colon may be eighteen inches out of its proper position.

Pressure of these accumulations has caused the function of the liver to be interfered with to such an extent as to cause almost a complete arrest of the flow of biliary secretion.

Collections of this kind have been known to crowd the uterus and appendages to such an extent as to interfere with their function in such a manner as to set up extensive reflex disturbances. The writer is acquainted with several surgeons who have opened the abdomen with the expectation of removing a tumor, to find only a mass of hardened fæces located in the colon near the cæcum.

It is claimed by some of the advertising advocates of this form of treatment for the cure of all diseases that as much as an ordinary water-pailful of hardened fæces has been taken from the bowel of one patient at a single flushing.

Many people whose bowels move every day have morbid accumulations of fecal matter in the bowel, as can be noted by the condition of the tongue and the symptoms of intestinal indigestion which they constantly present. It is this class of patients that should receive the occasional high rectal injection,

as well as those in whose colon has become formed an easily palpable mass. Whenever patients are of a costive tendency, they should receive a thorough flushing of the colon, for in this manner alone can all the scybalous masses be removed.

Fæces that have occupied the bowel for a longer than the normal time will have a dark-green or burnt-black appearance. The shorter the time that the food products have been in the intestinal canal the more yellow will be their color.

Any physician who makes it a constant practice to thoroughly palpate the abdomen of every patient of whom he considers it necessary to make a physical examination in this region and practises the conjoined method of manipulation will have little difficulty in locating accumulations of a size that will produce pathological symptoms, and when this cannot be done the high colon flushing described above will make a diagnosis and at the same time relieve the irritable condition caused by their presence.

The toxæmia produced by the absorption of the products of intestinal putrefaction presents a variety of symptoms, depending upon the susceptibility of patient and the amount of toxic material which has been absorbed, together with the period of time over which the condition has extended.

The furred tongue and foul breath will be present

during all the stages that the absorption is taking place. Later digestive fermentations will invariably produce flatulent distention, and this in turn will cause an irregularity of the heart's action, rapid breathing, etc., by crowding the thorax, and headache and dizziness from pressure exerted on the circulatory apparatus. Numbness and cramps may be produced by pressure on nerves.

When the condition is advanced, more pronounced symptoms than those mentioned above are present. The complexion is liable to be sallow and of a yellowish cast or to present a muddy appearance. Chloasmic spots are almost constantly seen in women of a costive habit, while nervousness may be present in any case (where the accumulations have been present for a sufficient time) to cause one to think that a convulsion will surely follow. In fact, many cases of epilepsy have been recorded which have been completely cured by the removal of large scybalous masses by colonic flushing.

When I first heard of this manner of treating the costive patient, my information came from such a reliable source that I determined to investigate its value by employing the method in all suitable cases that presented themselves for treatment, and will now give a description of several cases that were given nothing but the injections.

Case I.—Mrs. R. applied for treatment, and complained of much flatulence, which caused great abdominal distention. She was constipated at times; at other times the bowels would move several times a day, only small quantities of fecal matter mixed with much mucus and mucous casts being evacuated. She had a constant bearing-down sensation in the rectum, which was not relieved by defecation. She had a very sallow and muddy complexion, furred tongue, and very offensive breath.

On account of the great abdominal distention it was impossible to locate a deposit of any kind by palpation. So she was given a high rectal injection of one gallon of soapy water, which brought away about a pint of scybala. A second injection brought away as much more. The patient was ordered to take daily high rectal enemata, and after one month she would hardly have been recognized as the same person. The flatulent distention had disappeared, as had also the skin and tongue symptoms. The body functions had returned to a normal condition.

Case II.—This case is that of an unmarried lady, age thirty, who had been afflicted with epileptic seizures occurring almost daily for over two years. She was extremely nervous and very irritable. While thoroughly examining the abdomen, I was

enabled to note the presence of a loaded colon at different points throughout its course, and determined to institute the flushing of the canal as her treatment for a time. One of the masses, which was easily palpable, was so situated that considerable pressure was exerted on the right ovary and the uterus, displacing those organs to quite an extent and being the cause of an intense congestion of these parts.

This patient would have an aura which would precede the convulsion, and would consist of a numbness of a creeping character, beginning in the region of the cæcum and rising towards the head, unconsciousness coming on as this point was reached. This patient had about all the symptoms of indigestion which could be produced by an impaction of fæces in the colon.

The injections were given to this patient while she assumed the genupectoral position. As much as a gallon and a half of water were introduced. Occasionally the patient would complain of severe tormina, but by waiting a moment this would pass off and the injection could be continued until the entire quantity had been injected. The quantity of fæces gotten at the first injection was enormous, as much as a half-gallon of hardened and blackened fecal matter coming away.

Daily injections were ordered for some time.

A rapid improvement in the patient's general condition was noticed from the very beginning of the treatment. The intervals between the epileptic seizures were gradually lengthened, and at the end of two months the attacks stopped altogether.

Case III.—This is the case of a young lady, age nineteen, who had been costive and constipated as long as she could remember. Her symptoms were vertigo, headache, extreme nervousness, sleeplessness, foul taste, offensive breath, heart palpitations, and flatulent dyspepsia. She had also a sallow and yellowish cast of countenance, together with a seborrhœic and pimply condition of the face.

These symptoms were so characteristic of those presented by patients having scybalous accumulations in the colon that the abdomen was at once thoroughly examined, and, as suspected, masses were easily outlined by the conjoined method of manipulation.

The injections were given as in the preceding case, the patient assuming the genupectoral position while the water was being introduced.

A rapid subsidence of the symptoms took place at once, the patient presenting a perfectly healthy appearance in a few weeks after beginning the flushings.

TAPEWORMS

The tænia solium is the one most commonly found in this country. The embryos, known as the cysticercus cellulosæ, are derived from pork. The tænia saginata are derived from beef; their larva is known as cysticercus bovis. The bothriocephalus latus is the largest one which infests man. Its embryo is supposed to come from fish.

The growth of the worms takes place by being taken into the intestinal canal with the food, where they gain final maturity. Persons who eat uncooked animal foods or those handling fresh meats and fish are the ones most liable to be affected.

The tænia solium reaches a length of thirty feet or more. It has a globular head or solex, which measures about one-sixteenth of an inch, and has two circles of hooklets, which give it the name of the armed tapeworm. The segments or joints are flat and are connected by a slender neck. The joints are from one-eighth to three-fourths of an inch in length. The head contains a number of suckers, through which the worm takes its nourishment. Both male and female sexual organs are contained

in each joint, the latter being a long tube in which the ova are developed. The size of the ovum is about one-two-thousandth of an inch in diameter. There are several million ova in each worm.

The head of the parasite becomes firmly embedded in the mucous membrane of the upper half of the small intestine by its suckers and hooklets, where it remains unless dislodgment becomes necessary to seek food or when compelled to loosen its hold by medicines.

The lower segments, named proglotides, represent the complete animal. These separate from the parasite and are discharged alone or with the fæces.

The tænia saginata has a round or oval-shaped head, which is about one-sixteenth of an inch in diameter. This variety has four strong and very prominent suckers, but no hooklets, and on account of the latter fact has been given the name of the unarmed tapeworm. The segments are larger and thicker than in the first variety. The neck is also short and thick.

The bothriocephalus latus is the largest of the three cestodes. The length reaches sixty feet. The head measures about one-tenth of an inch in diameter. The neck is short and the segments are several times broader than they are long. They have a dull-gray color.

SYMPTOMS

Sometimes no symptoms are present, but in many other cases the patient will have colic pains through the abdomen, constant hunger, constipation, disorder of digestion, emaciation, heart palpitation, faintness, disorders of the special senses, and pruritus of the nose and anus. Many times all of these symptoms are present, but only one may be experienced. After a hearty meal the symptoms generally subside entirely. The first symptom noticed by the majority of patients is the passage of the segments at the time of stool.

TREATMENT

In almost every city and many small towns there are men who make a specialty of removing tapeworms. They are generally not graduates of medicine. Those in the cities are usually German specialists who have a reputation among their countrymen which has become established in this line. The following is the usual method of these men.

The patient is requested to omit the two later meals of the day, and at bedtime a sufficient quantity of a saline cathartic is taken to thoroughly empty the intestinal canal of its food products. The following morning the patient is given a teaspoonful of the ethereal oil of male fern. This will have a nauseating effect at the end of two or three hours,

and when this happens the patient is given a couple of ounces of castor oil to which have been added two drops of croton oil and fifteen drops of turpentine. After a short time the worm will be expelled with the bowel movement that results. This should be examined to note if the head be present.

A medical friend of the writer knew a tapeworm specialist who always took worms from any person that he could talk into the idea that one of the parasites was an occupant of his or her digestive canal. His method was the following.

The patient was instructed to eat no evening meal. The following morning he was given a half-pint of pumpkin-seed emulsion, and a couple of hours afterwards two ounces of castor oil and four drops of croton oil. When the bowels were ready to move, the patient was made to sit over an opening in a large box under which was a container. At the proper time the empty container was shifted for one in which had been placed a worm of the largest variety. Into this the patient's bowel contents were allowed to fall, so that in this manner the specialist always got results.

Many remedies are used to bring about an expulsion of the tapeworm, and the following are the ones which come very near acting as specifics: pomegranate, pepo, male fern, creosote in glycerin, two drachms

to the ounce, the tannate of pelletierine and kousso. Under the name of Tanret's pelletierine a preparation (which is simply the tannate) is sold at from two to three dollars per dose. This remedy acts no better than will from ten to twenty grains of a preparation manufactured by any of the reliable drug houses now doing business.

The following is a reliable formula:

℞ Fld. ex. male fern,
Chloroform, āā ʒi;
Emulsion of castor oil, ʒiii.

To be taken in the early morning, no food to be given until there has been a thorough movement of the bowels.

Another very successful method is to boil a pint of water in which have been placed two ounces of pomegranate-seeds down to six ounces, then add two ounces of pumpkin-seeds which have been deprived of their outer coating and beaten to a paste with powdered sugar. To this add thirty grains of oleoresin of male fern, and make the whole into an emulsion with acacia and add syrup enough to make nine ounces. The patient should eat no evening meal, and at bedtime should take a mild laxative. The following morning the patient should take one-third of the mixture every two hours. The worm should

be passed while the patient sits in warm water, to prevent its weight from causing it to become broken. If this is done, the entire worm can many times be gotten without a separation of the segments occurring.

An important procedure, and a valuable addition to the best treatment when it seems impossible to get the head of the worm, is to give high and frequent rectal injections of salt water, one-half ounce to the pint, until results are obtained. This should be done when the worm becomes broken and at a time when the small size of the segments shows that the remaining portion of the worm is in the colon. Solutions of tannin, alum, and other astringents are used in a similar manner.

A perfectly reliable medicine is made by boiling a pint of water in which have been placed two ounces of fresh pomegranate bark down to one-half the original quantity. To this is added one-half ounce of kousso which has been mixed with the white of an egg. The whole quantity is taken in three portions at intervals of two hours and on an empty stomach. This is followed by an ounce of castor oil and one drop of croton oil if the first mixture is insufficient to bring about the desired result. This treatment, together with the saline or astringent injection described above, will invariably expel the parasite.

Kousso is a valuable addition to other remedies used for the expulsion of all the varieties of tapeworm and will act in this manner alone, but must be given in very large doses, which cause much distress, so that its employment in combination is desirable. As far as taste is concerned, the best drug to employ is the pelletierine, in doses of from fifteen to twenty grains, followed by an ounce of castor oil and a couple of drops of croton oil. These will cover the medicinal field in almost every instance. To insure a more complete therapeutic action, this drug can be combined with one drachm of the fluid extract of male fern.

With any of the above formulæ the saline or astringent injection should be employed in case there is a breakage of the worm as it is being passed.

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